

# RAILWAY AGE

THE STANDARD RAILROAD WEEKLY FOR ALMOST A CENTURY

AUGUST 27, 1951



The luxurious *Super Chief* has been powered since its birth in 1936 with General Motors Diesel locomotives on its 39 $\frac{3}{4}$ -hour run between Chicago and Los Angeles. With 769 units in freight and passenger service—and 52 more on order—the growing fleet of GM Diesels on the Santa Fe has rolled up a total of almost a half-billion unit miles.

**ELECTRO-MOTIVE DIVISION**  
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HOME OF THE DIESEL LOCOMOTIVE  
In Canada: GENERAL MOTORS DIESEL, LTD., LONDON, ONTARIO

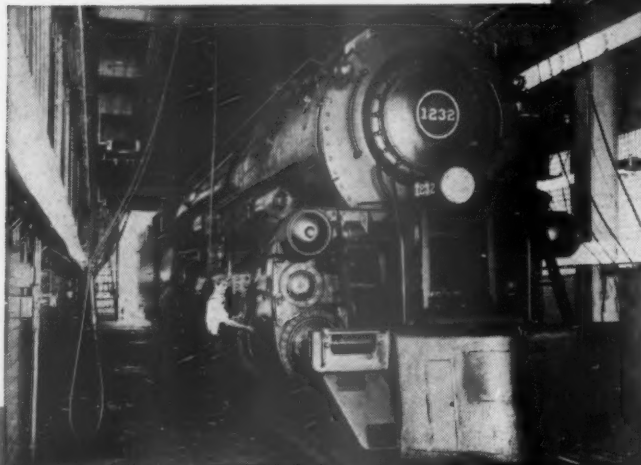


## LOCOMOTIVE LUBRICATION CHART

Large (59" x 38") detailed diagram of typical steam locomotive. Lists 1,051 parts, shows the proper Texaco Lubricants to use. We shall be glad to send you a copy without charge. Just tell us the name of your railroad and your position and title, please.



Norfolk and Western's twin engine service building at Williamson, W. Va. — considered the most advanced and efficient service arrangement ever devised. The drop hoses shown carry various Texaco Lubricants used on the locomotives.



Lubricating a Class A, single expansion, articulated locomotive, type 2-6-6-4, in the Williamson service building. N. & W. maintains similar engine service facilities at Shaffer's Crossing (Roanoke, Va.).

# HOW N & W SPEEDS ENGINE SERVICE

## ...with these modern facilities and Texaco Railroad Lubricants

Norfolk and Western's unique engine service buildings (one of which is shown above) are models of efficiency. Engines simply roll in, are inspected and lubricated in minimum time. Results: greater engine availability, lower maintenance costs.

Lubricant *quality*, of course, is just as important as efficient set-up, so N. & W. uses Texaco. Here, for instance, is a typical example —

*Texaco Driving Journal Compounds and Rod Cup Greases* give longer lasting, more positive protec-

tion than ordinary greases. They are made from heavy-bodied cylinder stocks especially to withstand high temperatures and extreme pressure. Their inherent oiliness assures adhesion to frictional surfaces. They start to work the moment the pin or driving journal starts to turn. *N. & W. has used Texaco Driving Journal Compounds and Rod Cup Greases exclusively for more than a quarter-century.*

There are Texaco Railroad Lubricants for every need. Use them — and the unique Texaco Lubrication Engineering Service — to reduce your maintenance costs. A Texaco representative will gladly give you details. Just call the nearest Railway Sales Office listed below, or write:

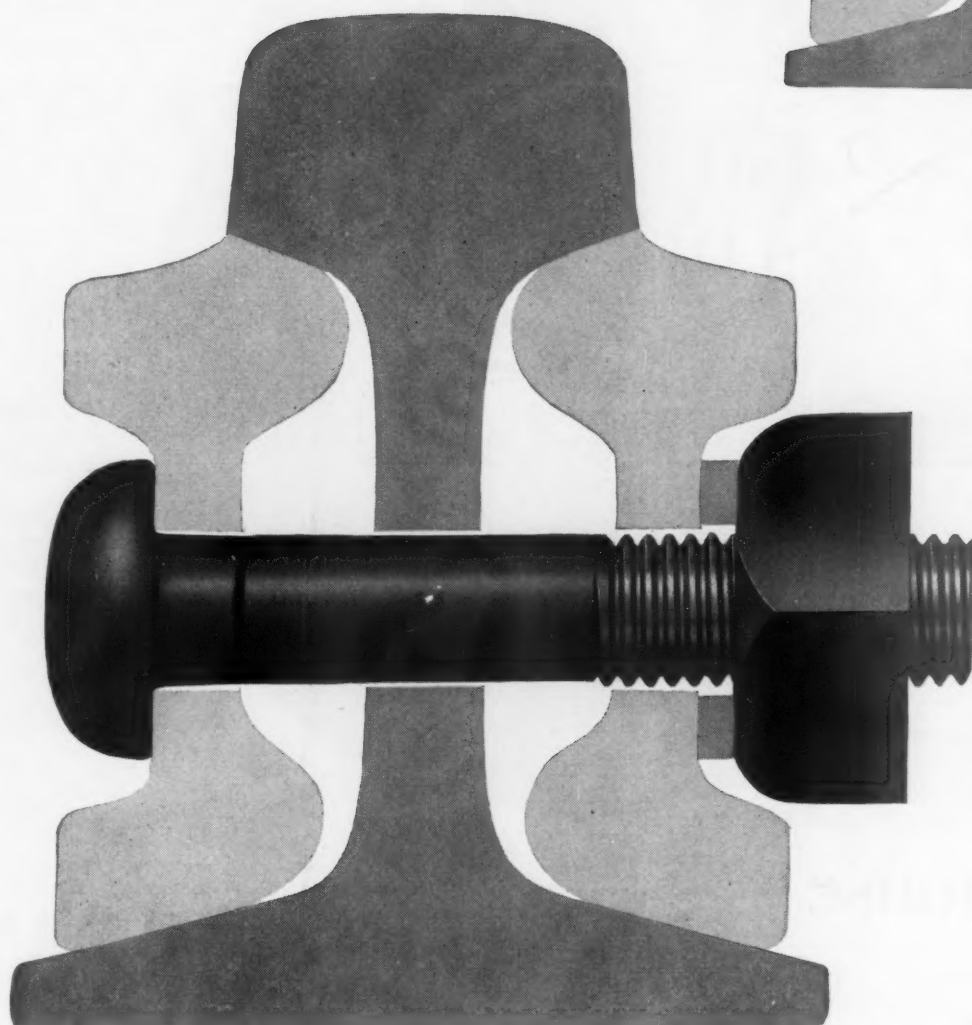
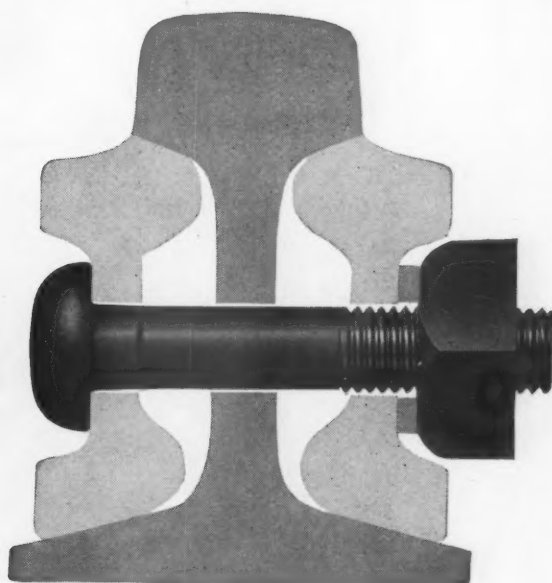
The Texas Company, *Railway Sales Division*, 135 East 42nd Street, New York 17, N. Y.

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# Track Bolts



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WEIGHT  
OF  
RAIL**

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On the Pacific Coast Bethlehem products are sold by Bethlehem Pacific Coast Steel Corporation  
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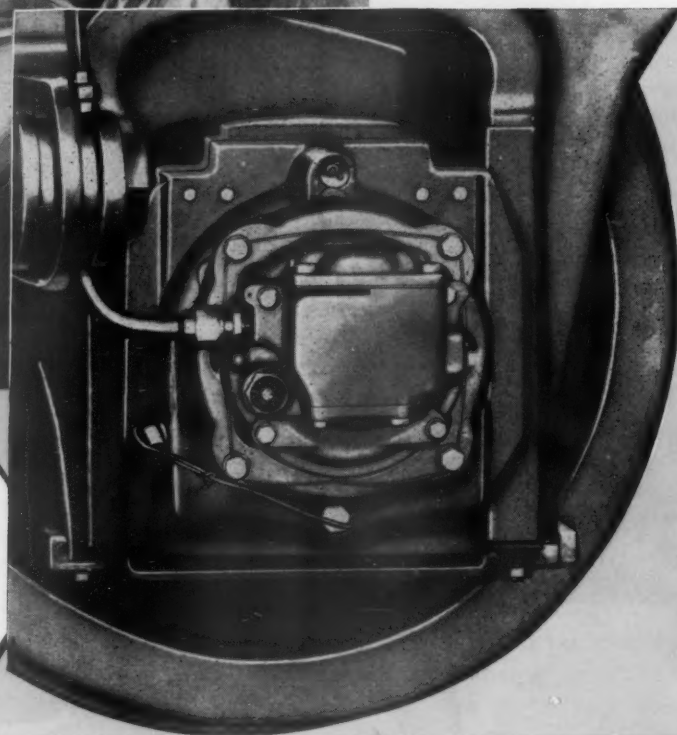


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AIR BRAKE DIVISION

WILMERDING, PA.



*Brakes are Basic  
to  
Railroad Progress*



# RAILWAY AGE

With which are incorporated the Railway Review, the Railroad Gazette, and the Railway-Age Gazette. Name Registered in U. S. Patent Office and Trade Mark Office in Canada.



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Published weekly by the Simmons-Boardman  
Publishing Corporation at Orange, Conn., and  
entered as second class matter at Orange, Conn.,  
price, \$3.00 a year to railroad employees only in  
U. S., U. S. possessions and Canada, payable in  
advance and postage free. Subscription price to  
railroad employees elsewhere in the Western  
Hemisphere, \$10.00 a year; in other countries,  
\$15.00 a year. Two-year subscriptions double  
the one-year rate. Single copies 50¢, except  
special issues \$1. Address Robert G. Lewis,  
Assistant to President, 30 Church Street, New  
York 7.

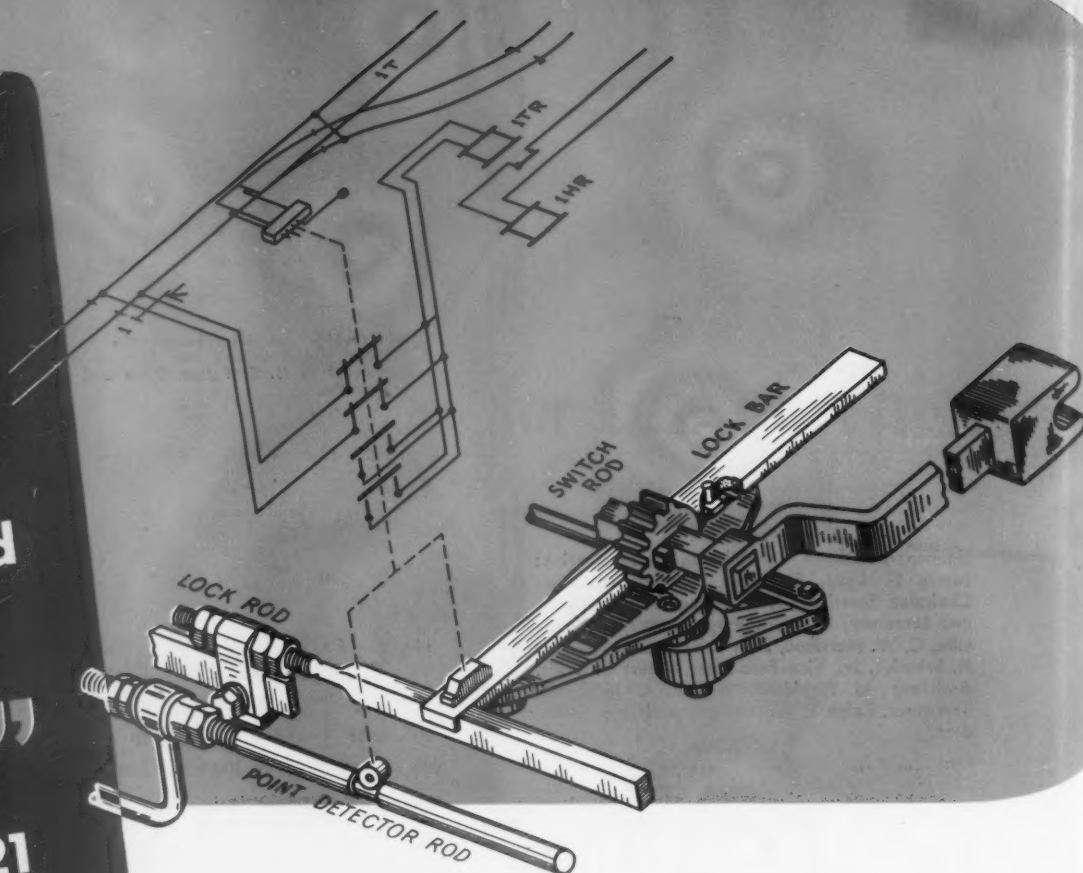
Editorial and Executive Offices at 30 Church  
Street, New York 7, N. Y., and 79 West Monroe  
Street, Chicago 3, Ill. Washington 4, D. C.: 1081  
National Press Building—Cleveland 13: Terminal  
Tower—Portland 5, Ore.: Terminal Sales Build-  
ing—Los Angeles 17: 1127 Wilshire Boulevard—  
San Francisco 4: 1204 Russ Building—Dallas 4:  
2909 Maple Avenue.

Published by SIMMONS-BOARDMAN PUBLISHING CORPORATION, New York 7

Railway Age Railway Mechanical & Electrical Engineer Railway Engineering & Maintenance  
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Railway Age is a member of Associated Business Publications (A. B. P.) and Audit Bureau  
of Circulation (A. B. C.) and is indexed by the Industrial Arts Index and by the Engineering  
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*Safeguards*  
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**"UNION"**  
**T-20 and T-21**  
**SWITCH STANDS**

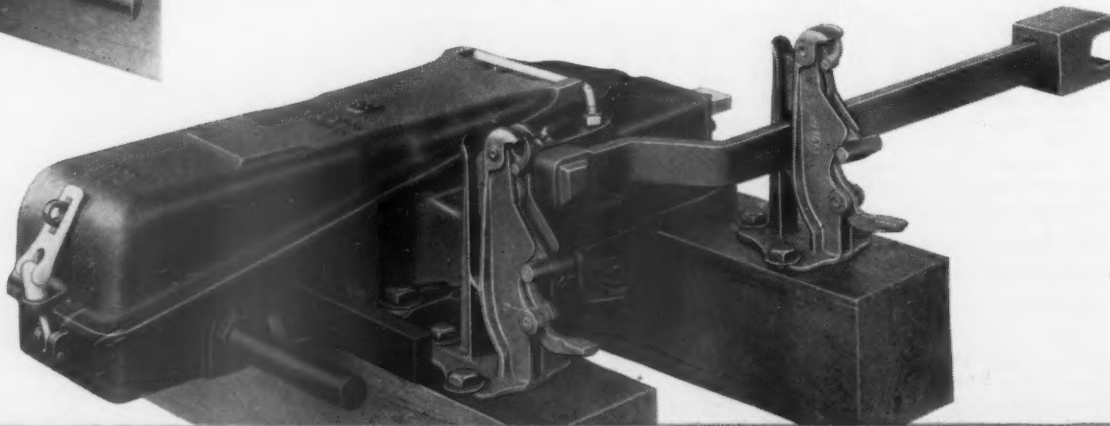


More than devices for merely throwing switches, "Union" T-20 and T-21\* Switch Stands actually provide protection comparable to that of interlocked switches.

For example, "Union" Switch Stands incorporate a built-in circuit controller to prevent signals from clearing unless: (1) the mechanism is in the normal locked position, with the lock bar engaged in the lock rod notch and . . . (2) the switch points are properly positioned, as continuously checked by the point detector rod.

"Union" Switch Stands have many other features . . . too . . . which we'll be glad to tell you about if you'll ask our nearest district office.

\*"Union" T-20 and T-21 Switch Stands are the same except that the T-21 has a built-in target drive assembly



**UNION SWITCH & SIGNAL**

DIVISION OF WESTINGHOUSE AIR BRAKE CO.

SWISSVALE



PENNSYLVANIA

NEW YORK

CHICAGO

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# WEEK AT A GLANCE

## CURRENT RAILWAY STATISTICS

<b>Operating revenues, six months</b>	
1951 .....	\$ 5,035,876,498
1950 .....	4,223,707,275
<b>Operating expenses, six months</b>	
1951 .....	\$ 3,975,306,446
1950 .....	3,354,141,920
<b>Taxes, six months</b>	
1951 .....	\$ 570,919,760
1950 .....	434,899,975
<b>Net railway operating income, six months</b>	
1951 .....	\$ 388,044,695
1950 .....	346,295,612
<b>Net income, estimated, six months</b>	
1951 .....	\$ 250,000,000
1950 .....	209,000,000
<b>Average price railroad stocks</b>	
August 21, 1951 .....	53.16
August 22, 1950 .....	46.70
<b>Car loadings, revenue freight</b>	
32 weeks, 1951 .....	24,532,269
32 weeks, 1950 .....	22,588,291
<b>Average daily freight car surplus</b>	
Week ended August 18, 1951 .....	3,220
Week ended August 19, 1950 .....	4,504
<b>Average daily freight car shortage</b>	
Week ended August 18, 1951 .....	18,355
Week ended August 19, 1950 .....	38,691
<b>Freight cars delivered</b>	
July 1951 .....	5,290
July 1950 .....	3,464
<b>Freight cars on order</b>	
August 1, 1951 .....	144,810
August 1, 1950 .....	67,084
<b>Freight cars held for repairs</b>	
August 1, 1951 .....	101,001
August 1, 1950 .....	129,097
<b>Average number railroad employees</b>	
Mid-July 1951 .....	1,294,525
Mid-July 1950 .....	1,247,987

## In This Issue . . .

**HOW THE "FINANCIAL MAN" CAN HELP:** There are, says J. E. Kusik, financial vice-president of the C. & O., at least five major problems in the railroad industry which call for expert specialized financial knowledge, and the use of that knowledge in the making of top management decisions. What these problems are, and how financial men can assist in their solution, is told by Mr. Kusik on page 49.

**TIRED OF RENTING:** The M. & St. L. is. So it has built itself, in Minneapolis, a fine new office building, which is described and illustrated beginning on page 44. Other feature articles in this issue include a discussion of some of the changing aspects of air pollution (page 47), and a description of the Atlantic Coast Line's grade crossing safety program (page 41).

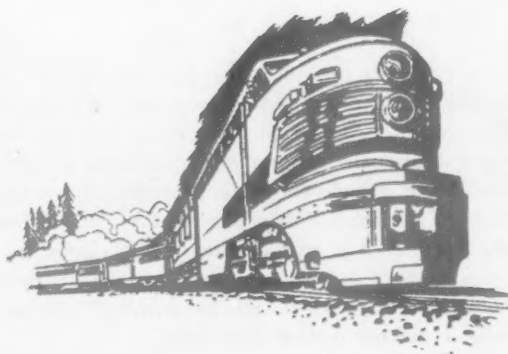
**TWENTY-THREE TIMES AS MUCH!** That's what it cost the Post Office Department, in 1950, for each letter handled by air mail, compared to each letter handled by railroad mail. Detailed figures supporting that conclusion are cited in the news pages.

**PUBLIC RELATIONS—AND ADVERTISING:** The two activities are closely related—but they are not the same thing. How the Union Pacific has done an outstandingly successful job on both, at a comparatively small total cost, is told in detail in the article which starts on page 36. The secret seems to lie in independent, but closely integrated, departments, constantly cooperating with each other.

## In Washington . . .

**HOW MUCH TOWARD OVERHEAD?** How much each major class of freight traffic contributed, over and above its own out-of-pocket handling cost, to the general railroad "overhead burden" is set out, for 1949, in a study recently released by an I. C. C. bureau. A summary of the study appears on page 31.

**WASHINGTON HEADLINES:** July gross estimated at 4.3 per cent above July 1950.—F.C.C. gives "green light" to limited railroad use of long-range "mobile-to-mobile" radio communications facilities.—August 1 locomotive order backlog totals 1,602 units.—Total freight car owner-





## WEEK AT A GLANCE

ship decreases slightly in July, for first time since last November.—I.C.C. approval of abandonment of Pennsylvania's Philadelphia-Camden ferry service leads to announcement of plans for modernization of Pennsylvania-Reading Seashore Lines' Camden Broadway terminal.—Leiserson heads temporary wage panel.—Dispatchers get pay increase.

### ... And Elsewhere

**\$4 MILLION WASHED AWAY:** The Missouri Pacific has tallied up the losses in properties and traffic which it sustained during the July-August floods in Missouri, Kansas and Nebraska. In all, they ran to \$2 million in traffic and another \$2 million for physical rehabilitation.

**TV DRAMA—IN 27 SECONDS:** August is the peak month for motoring vacationists. It is, therefore, a particularly nerve-wracking time for road locomotive crews, who daily face the possibility of becoming unwilling participants in a highway crossing accident. But a potent new weapon for combatting the crossing accident toll may lie in the American television set—because it has the power to bring a dramatic, visual warning right into the home of every motorist—and to every member of his family. The National Safety Council recently placed three 27-sec. film dramas in the hands of every TV station in the country. Two of these deal entirely with the crossing problem and the third includes it as part of a general story on traffic control signs. All are intended as sustaining, or spot, announcements to be used at will during August. Obviously, these films alone will not lick the grade crossing problem, but they may be a "seven league boot" stride in that direction. Engine crews in TV areas will probably view them with special hope—and no little satisfaction.



U.S. Army Signal Corps photo

**JUST ONE YEAR** prior to the date of this issue — August 27, 1950 — Major General Frank A. Heileman, Chief of the Army Transportation Corps, became director of operations of all American railroads, by designation of Secretary of the Army Frank Pace, Jr., acting under orders from President Truman. The wage-hour dispute with the Brotherhood of Railroad Trainmen, which led to the government's taking over the railroads, has since been settled, but a similar dispute with the Order of Railway Conductors, which was also involved in the President's action, is still pending.

**DEFINITION:** Socialism is nothing but Communism on a slow train.

**HOT BOXES NO UNIFORM PROBLEM:** Hot boxes on freight-train cars showed an increase during May over April. The summary of reports to the A.A.R. Mechanical Division by 116 railroads shows an average of 155,599 miles per car set out between division terminals because of a hot box, as compared with 237,521 miles in April. Of greater significance, are the wide variations between roads. Of the 48 companies reporting more than 10,000,000 car-miles during the month, car-miles between set-outs of 17 roads ran over 200,000 and five of the 17 made over 400,000. Another 12 roads made less than 100,000. The best record was about 600,000 miles; the poorest, 68,000. Differences in character of traffic have something to do with these variations. But how about differences in practices on repair tracks and in train yards?

**THE DUMMY RUNS:** As an economy measure, the Long Island is now stopping or starting a number of its steam and diesel powered trains at Jamaica, instead of at Pennsylvania Station in New York. This requires passengers to or from Penn Station to change at Jamaica to or from multiple-unit electric trains. Some commuters have protested the move; one of them explained to the New York Public Service Commission that he plays bridge in transit, and that it is now necessary for "dummy" to "scoot for the car door" the moment a train arrives in Jamaica, to hold seats on the next train for the other players. This, he added, "isn't very good for morale—especially if dummy doesn't find seats."

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THAT PAYS ITS OWN WAY**

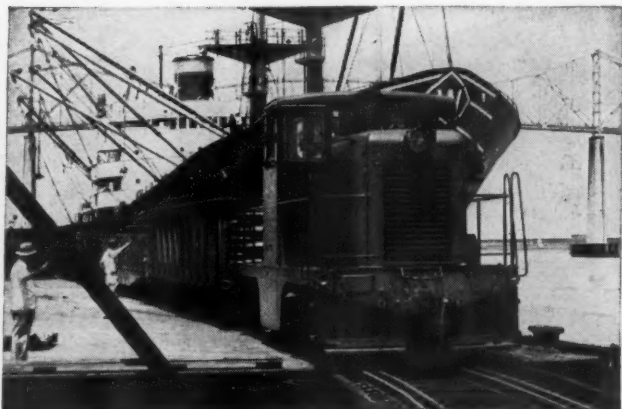


**IT'S A DOUBLE THREAT**—the Sacramento Northern uses the 44-ton for switching and transfer. This diesel-electric is not yard bound. With its two heavy-

duty engines totaling 400 hp it is a powerful unit for road haul and yet is economically justified for switching work.



## G-E 44-ton, 400-hp diesel-electric gives "performance plus" in yard and road operation.



**IT'S A MONEY-MAKER**—20-40% average savings is the story time and again with these 44-tonners. Case histories reveal that many railroads have paid for diesel-electrics in two, three and four years. The South Carolina State Port Authority, Charleston, S. C. received a one-third return on its investment in 16 months. Less fuel usage, less maintenance and service, less wear on road beds, greater utilization are some of the reasons for this amazing economy.



**IT'S AVAILABLE**—Available 95% of the assigned time, on an average, as the Boston & Maine Railroad has discovered. To obtain this availability there are two power plants, each complete with battery-charging generator, air compressor, and traction motors which can be operated individually in an emergency. Push-button starting, simplified maintenance and servicing make the 44-tonner ready to go the minute it's wanted. And 10 years of operating experience back them up.



**IT'S A WORKHORSE**—The Coudersport & Port Allegany Railroad at Coudersport, Pennsylvania has found the 44-tonner to be a hard worker. Ease of control, fast acceleration, good visibility permit fast switching. Speeds up to 35 mph also makes them good for the road, too.

Whether it's for switching or road haul, there's a place for this locomotive on your railroad—in single—double—or triple unit operation.



**IT STICKS TO THE RAILS**—the San Francisco & Napa Valley Railroad attests to its amazing adhesion which makes it just about the glueiest locomotive on wheels. Its parallel-connected motors give smooth, steady traction for the heaviest grades.

For further information on the G-E 44- and 70-ton locomotives consult your nearest G-E sales office. General Electric Company, Schenectady 5, N. Y.

# GENERAL



# ELECTRIC

121-58

# In 1500 Automobile Car



*Here's how the job was handled...*



**1** First step in producing U-S-S COR-TEN body bolsters. Here bolster lower pan sections are flame cut from COR-TEN plate. To insure accuracy, the cutting torches are guided by template.



**2** After heating, lower pan sections are formed in this press.

**3** Both edges of the lower pan section are trimmed simultaneously in this ingenious rig.



**4** Automatic welding the upper and lower bolster pans together. At left is a cross-bearer with such welding completed.





# Underframes for Southern Pacific

➔ **U·S·S COR-TEN reduces weight  
756 lb. per frame!**

➔ **saves 567 tons  
of steel!**

To accomplish these highly desirable results, the Consolidated Western Steel Corporation has taken full advantage of the superior strength and atmospheric corrosion resistance of U·S·S COR-TEN. The basic problem here was to reduce underframe weight without reducing strength or stamina. U·S·S COR-TEN was chosen for the job because it has all the qualities that make these results possible.

The original design specified by the railroad was adapted for hand welding. However, Consolidated Western is equipped to automatically-weld formed plates into bolsters and cross-bearer members. So they

submitted a welded design, using COR-TEN, to the Southern Pacific. This had the advantage of being not only stronger and lighter—but was actually cheaper to produce.

As built, each of these welded underframes has a total shipping weight of about 11,600 lb. Of this, 2,480 lb. are COR-TEN used in the body bolsters and cross-bearers. Weight saved per underframe is 1,160 lb., of which the COR-TEN construction accounts for 756 lb.

Savings like this—in dollars, in weight and in steel tonnage—that can be obtained by combining good design, modern manufacturing tech-

niques and U·S·S COR-TEN are important anytime. Today, when it is imperative to make the supply of steel go as far as possible, they are doubly important.

\* \* \*

U·S·S COR-TEN in substantial amounts has been applied in more than 150,000 freight cars. Our engineers who pioneered its application sixteen years ago, will be glad to show you how you can make your equipment—or any part of it—lighter or stronger, more durable, and often lower in cost, by building with U·S·S COR-TEN.

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NATIONAL TUBE COMPANY, PITTSBURGH • TENNESSEE COAL, IRON & RAILROAD COMPANY, BIRMINGHAM • UNITED STATES STEEL COMPANY, PITTSBURGH  
UNITED STATES STEEL SUPPLY COMPANY, WAREHOUSE DISTRIBUTORS, COAST-TO-COAST • UNITED STATES STEEL EXPORT COMPANY, NEW YORK

**5** This close-up of underframe shows automatic-welded COR-TEN bolster after tack welding into position in the assembly jib and before final welding in the rotating jigs.



**6** A carload of Southern Pacific underframes ready to leave the plant. Note the dunnage racks at each end of flat car into which the frames are nested to insure safe shipment.



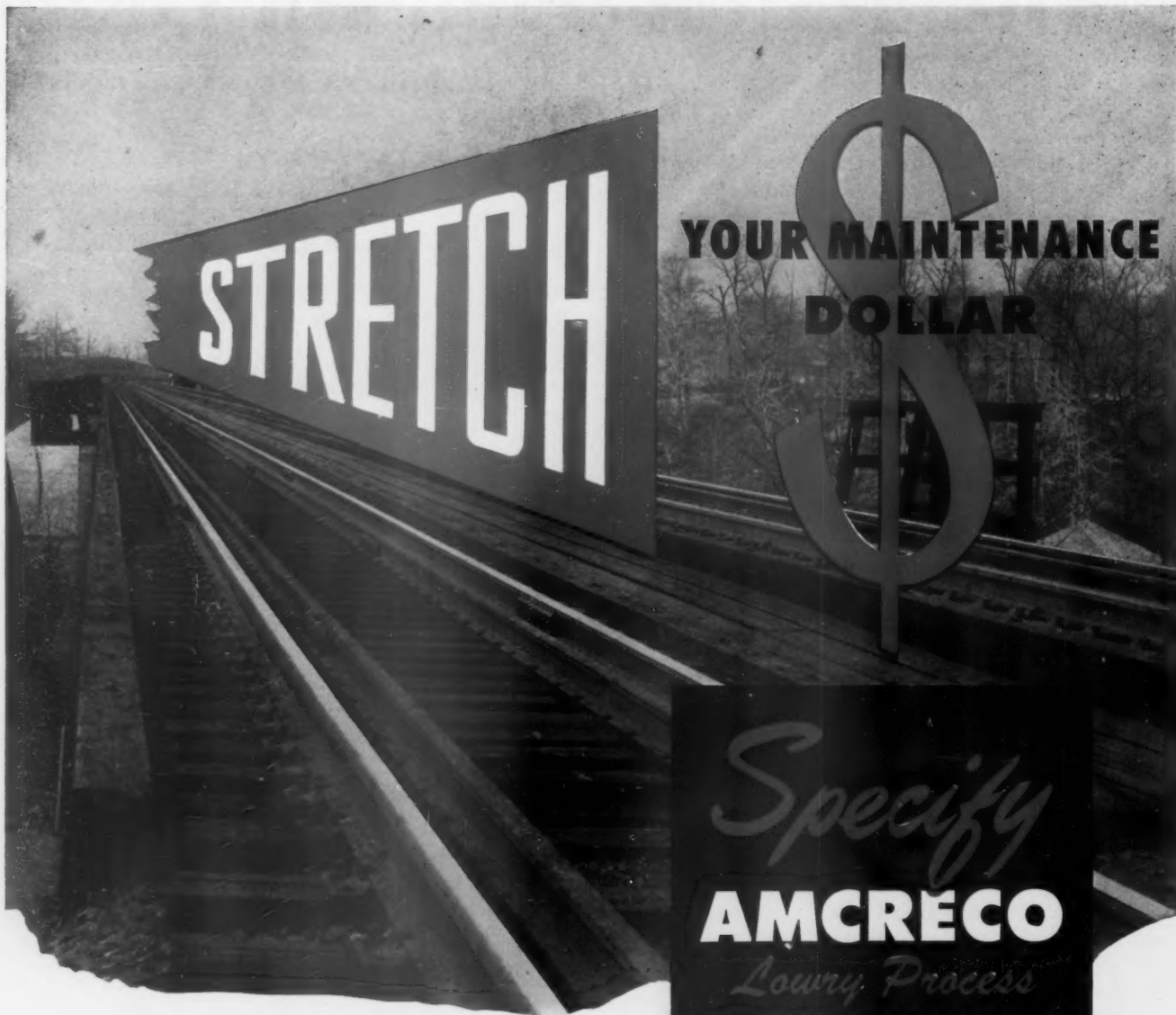
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for  
strength that lasts!*

# And now-eight!



**T**AYLOR-COLQUITT, at Spartanburg, So. Carolina—large suppliers to U. S. railroads—really knows costs in the pole and tie business. So when they bought their first American DiesElectric locomotive cranes, they watched expenses with an eagle eye.

Today, Taylor-Colquitt is operating their *eighth* 25-ton American DiesElectric. The two big reasons for these re-orders are: *more work done, less money spent.* To

them, experience has proved that DiesElectric design (diesel power to the deck; electric power to the trucks) means not only more tonnage per day but a wonderful reduction of "down" time and repair expense.

If you would like to find out how American DiesElectric design has eliminated tons of wearing parts . . . how these cranes pay for themselves in five years . . . mail the coupon below.

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**AMERICAN LOCOMOTIVE CRANES**

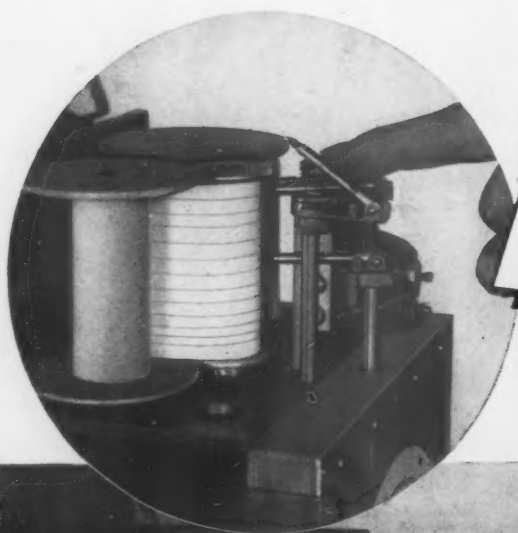
Capacity \_\_\_\_\_ tons ☐ Diesel ☐ DiesElectric

Name \_\_\_\_\_

Company \_\_\_\_\_

Address \_\_\_\_\_

City \_\_\_\_\_ State \_\_\_\_\_



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\* Name on request.

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NEW BULLETIN—"Barco Recorders for Diesel, Steam, and Electric Locomotives in Passenger, Freight, and Switching Service."



# BARCO RECORDERS

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SPEED INDICATORS  
DIESELOMETERS  
SWITCH ENGINE RECORDERS**

FREE ENTERPRISE—THE CORNERSTONE OF AMERICAN PROSPERITY

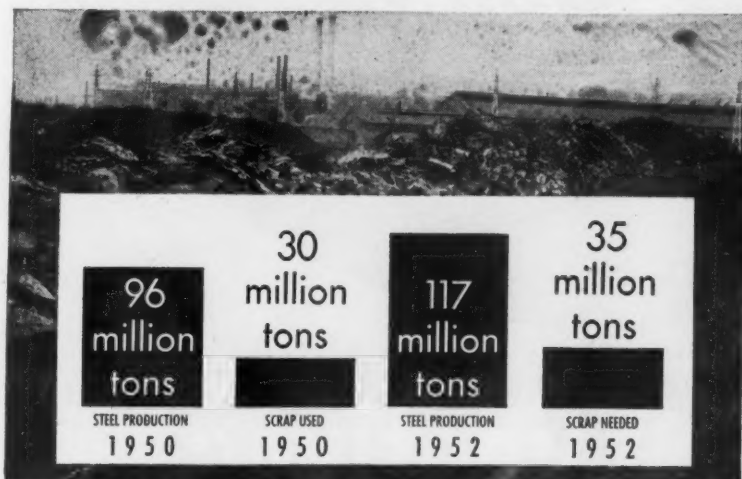


# LET'S FACE THESE FACTS ABOUT SCRAP

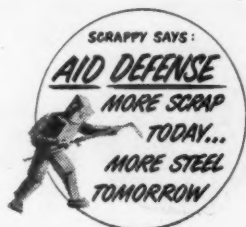
# then act!



This is no "scare" campaign for more iron and steel scrap. But it boils down to a few simple facts: 1. Scrap inventories are dangerously low in steel mills all over the country. 2. More steel scrap is needed today than ever before because steel-making capacity is greater.



Present low scrap piles in steel mills are due to one thing—the growth of steel production to more than 100 million tons a year, which requires several million more tons of scrap than have ever been available. By the end of 1952 steel production will hit 117 million tons a year. Besides scrap available from steel-making, the industry will require 5 million more tons of scrap than were needed in 1950.



## ARMCO STEEL CORPORATION

4331 Curtis Street, Middletown, Ohio • Plants and Sales Offices from Coast to Coast • Export: The Armco International Corporation



Only top-management action can help insure an adequate supply of scrap.

Many railroad division heads have named a permanent "salvage committee" for their maintenance shops and yards. This committee reports on all worn-out equipment, and superintendents decide what should be sold.



Remember, scrap resulting from current industrial production isn't enough to carry the load. Your committee should check every questionable piece of equipment and list all worn-out cars, locomotives, rails and other equipment.

Then call your scrap dealer.

**Edgewater**  
**Rolled Steel Wheels**

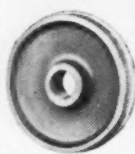
**FOR**

**Diesel Locomotives**

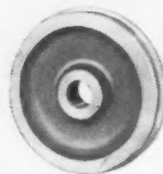
**Edgewater  
 Steel Company**

PITTSBURGH, PA.

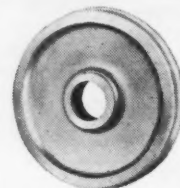
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Freight  
 Car



Passenger  
 Car



and Diesel  
 Locomotive  
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Either Goggle gives Comfortable Protection Over Personal Glasses



FOR CHIPPING and SIMILAR OPERATIONS  
AO 321R DURAWELD GOGGLE

Light in weight, these goggles protect workers' eyes and personal glasses against flying particles striking from any direction. They're highly recommended for grinding, babbiting, riveting, hand tool and machine work, rail and rivet cutting and spike driving, as well as chipping.

#### QUICK FACTS:

- Opaque Eyecups have serrations in edge, plus many side perforations for ample ventilation and anti-fogging.
- Retaining rings of aluminum, treated to prevent corrosion and slotted for extra ventilation.
- Rigid adjustable Metal Bridge.
- Lenses are 50 mm. Super Armorplate or 6 Curve Super Armorplate, Clear or Calobar, medium, dark or extra dark.
- Headband of one-piece rubber, easily adjustable.
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FOR GAS WELDING and SIMILAR OPERATIONS  
AO 323R DURAWELD GOGGLE

The 323R offers quality protection with lightweight comfort against injurious light rays, glare, flying sparks and scale. Recommended wherever these hazards are present, as in burning, cutting, brazing and furnace operations, as well as gas welding.

#### QUICK FACTS:

- Indirect ventilated Side Shields both protect and provide natural draft to reduce fogging of lenses.
- Opaque Eyecups fit over practically all personal glasses.
- Noviweld Lenses, shades 3, 4, 5, 6 or 8 or Noviweld-Didymium Lenses, shades 3, 4, 5 or 6. Easily replaceable cover lenses protect filter lenses from pitting or scratching.
- Bridge, Headband, Rubber Cushions similar to AO 321R Goggle.

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# Why Don't They...

**D II**  
**Buckle**

**PIONEERS IN BETTER TRANSPORTATION**



**W**hen somebody at Budd starts wondering, and it doesn't make much difference who does the wondering, things begin to happen. For the whole Company is set up in such a way that ideas from any source are channeled to the people best equipped to evaluate and develop them.



So, when somebody wondered why there had been no fundamental improvement in railway passenger car brakes since the invention of the air brake itself, in spite of greater loads and much accelerated speeds, research and experiment followed as surely as day follows night. Years of it.

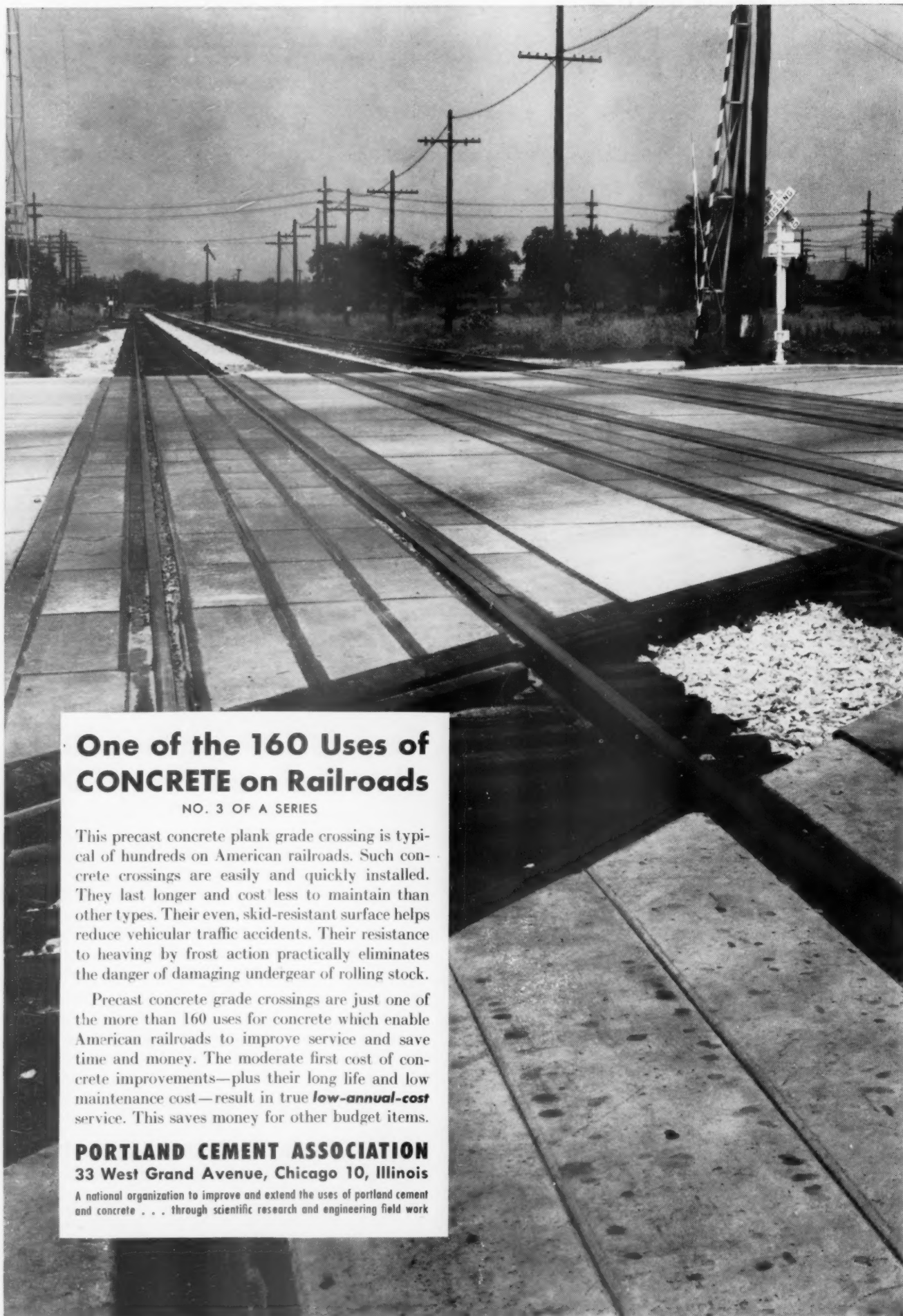
"Why don't they?"—design a brake that stops railway passenger cars more quietly, smoothly; that applies maximum deceleration at highest speeds; that operates without a lot of complicated, cumbersome rigging; that protects wheel treads from excessive wear; that makes heat checking impossible; that saves maintenance cost through greatly extended brake-shoe life?

That is a pretty formidable list of "Why don't they's?". Every one of them is answered by the Budd Model CF railway passenger car disc brake. Not least of its many virtues is the fact that it can save more than a thousand pounds in overall car weight, and reduce operating costs per car as much as a thousand dollars a year.

Here is another example of the inquiring mind, the inventive urge, that Budd brings to railroading, along with unequalled facilities for translating ideas into practical improvement.

The Budd Company  
Philadelphia, Detroit, Gary.





## One of the 160 Uses of CONCRETE on Railroads

NO. 3 OF A SERIES

This precast concrete plank grade crossing is typical of hundreds on American railroads. Such concrete crossings are easily and quickly installed. They last longer and cost less to maintain than other types. Their even, skid-resistant surface helps reduce vehicular traffic accidents. Their resistance to heaving by frost action practically eliminates the danger of damaging undergear of rolling stock.

Precast concrete grade crossings are just one of the more than 160 uses for concrete which enable American railroads to improve service and save time and money. The moderate first cost of concrete improvements—plus their long life and low maintenance cost—result in true **low-annual-cost** service. This saves money for other budget items.

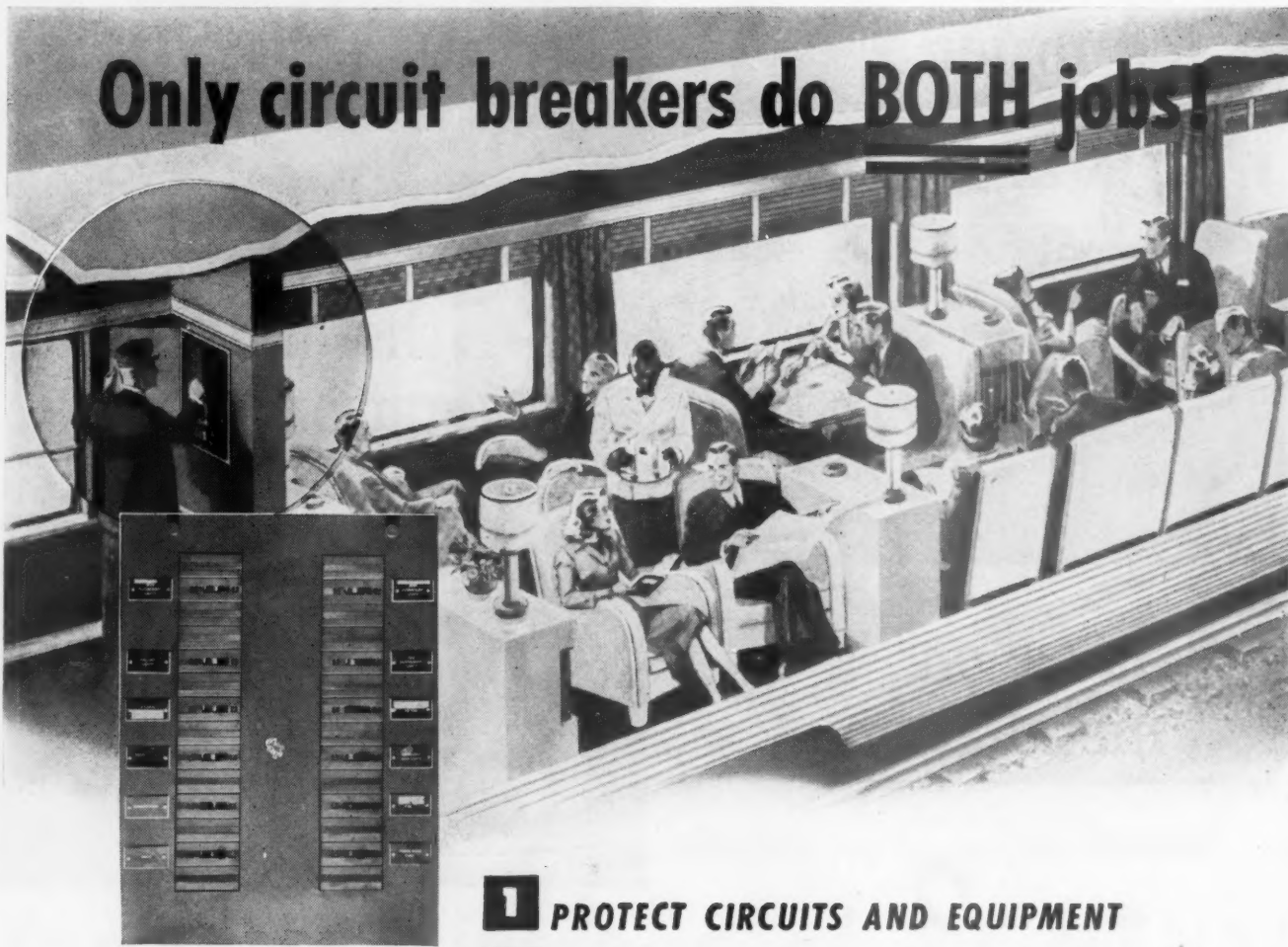
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33 West Grand Avenue, Chicago 10, Illinois

A national organization to improve and extend the uses of portland cement and concrete . . . through scientific research and engineering field work



Save with **SAFER...Surer**  
**AB BREAKERS**

**Only circuit breakers do BOTH jobs!**



*A Railway Electric Control Locker  
equipped with Westinghouse  
Circuit Breakers.*

- 1 PROTECT CIRCUITS AND EQUIPMENT**
- 2 ASSURE CONTINUOUS PASSENGER SERVICE**

Electrical living on modern trains has sharpened the need for the most modern obtainable circuit control and protection. Complete air conditioning systems, kitchen equipment, journal alarm systems, electropneumatically operated doors, individual roomette lighting, heating and utility outlet systems and other equipment are rapidly expanding railway power requirements.

Westinghouse Circuit Breakers assure you of prompt and complete protection on dangerous overloads and short circuits, restore current with a flip of the handle. There is nothing to replace. For one thousand ruptures—or one, Westinghouse equipment is precisely calibrated for the life of

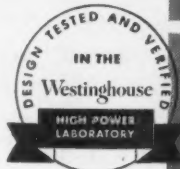
the installation. Time delay on harmless, temporary overloads minimizes needless passenger service interruptions.

For assistance on specification of circuit protection equipment, contact your nearest Westinghouse representative, or write for B-4062, Westinghouse Electric Corporation, Box 868, Pittsburgh 30, Penna. J-30051

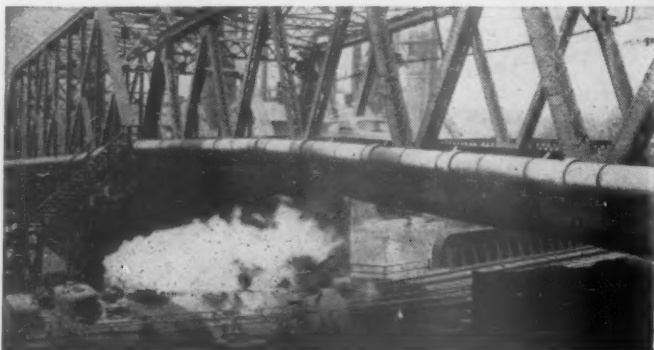
YOU CAN BE **SURE**.. IF IT'S  
**Westinghouse**

**AB CIRCUIT BREAKERS**

**THE COMPLETE LINE**



**Resists  
corrosion...**



**Withstands  
vibration...**

**Saves on  
installation...**



## ... 3 good reasons why **TRANSITE PIPE** cuts railroad water-line costs to the bone!

**H**ERE'S WHY many of the country's leading railroads have invested in Transite\* Pressure Pipe as the key to *long term* water-line economy:

**Resists corrosive soils**—Transite Pipe is made of asbestos and cement, steam-cured under pressure to give it exceptional corrosion-resistance. That's why this pipe stays strong, even when exposed to such highly corrosive soils as cinder fills, salt marshes and other acid or alkaline soil conditions.

**Withstands traffic shocks, earth movements**—Transite's Simplex Couplings make up tight, stay tight in service. And because these joints are flexible, they absorb the shock and vibration of train traffic, help compensate for soil movements and other

stresses—providing a constant safeguard against leakage of water into adjacent soil and protecting against costly pipe failures.

**Saves on installation, gives long service**—Pipe-laying crews can lay more pipe per day with Transite because it is light in weight, easy to handle, and because the simple coupling method used speeds up assembly, saves time on the job. And these initial installation economies are followed by long-term economies in both operation and maintenance that help assure lower water-line costs over the years.

For further information about Transite Pipe, write for Brochure TR-11A. Just address Johns-Manville, Box 290, New York 16, N. Y.

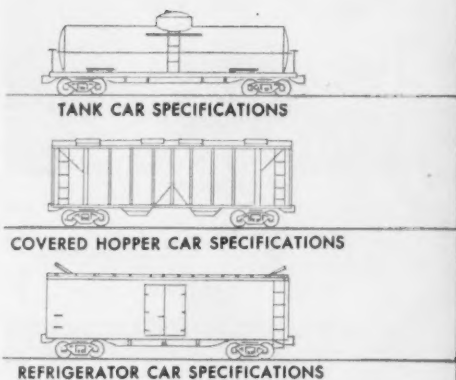
\*Transite is a Johns-Manville registered trade mark



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Covered hopper car finished with CARCLAD in September 1946. This photo made 3 years later ... inspections made 4 years later...still show finish intact and good for continued service!

# 1947



# 1951

# NOW...

protection against acids...alkalies...corrosive cargoes...  
**for YEARS instead of MONTHS!**



Now proved in continuous service for periods of more than FOUR years on covered hopper cars, Sherwin-Williams CARCLAD offers an end to costly refinishing schedules formerly required.

Equipment once requiring refinishing within months now can be protected for years—even in cement, soda ash and similar service. CARCLAD—a product of Sherwin-Williams research—provides new long-life resistance to acids, alkalies, sulphur, phosphate, common salt, petroleum products and alcohols. It withstands repeated scrubbing and washing with strong cleaning solutions.

Ask for proof of the remarkable performance of this new finish. See actual photographs and records of CARCLAD-covered hopper cars in service on leading railroads! Contact your Sherwin-Williams representative or write The Sherwin-Williams Co., Transportation Division, Cleveland 1, Ohio.

## SHERWIN-WILLIAMS

### RAILWAY FINISHES





## INVISIBLE MEN WHO WORK FOR YOUR ROAD

**I**NVISIBLE, yes, but only because they never call on you. Yet day after day, year after year, they steadfastly work for your road.

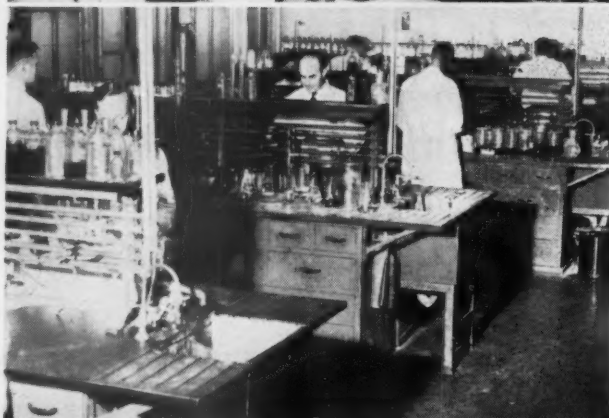
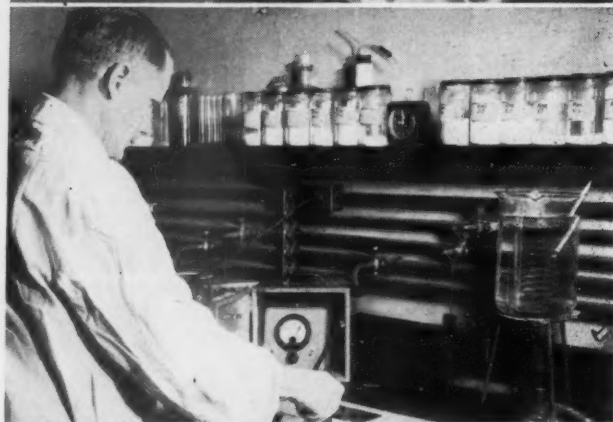
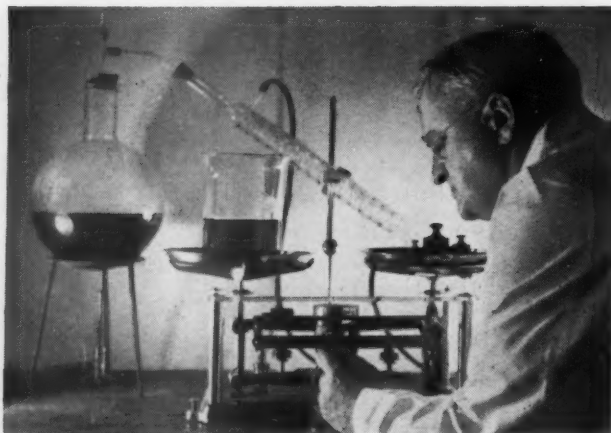
### *Who are these men?*

They are the men comprising the large Oakite technical staff who patiently pioneer with intricate chemical combinations in test tubes, retorts and beakers...

They are the men who carry on thousands of experiments and tests to provide your road with the specially designed Oakite cleaning and related materials that are so successfully saving time and money on equipment maintenance.

And while these capable, trained research men never call on you, they are an important and integral part of Oakite Nation-Wide Service, freely available to every railroad... your road... entirely without cost. Write us today. Find out how the fruit of Oakite's 40 years experience and specialization in railroad maintenance cleaning can be utilized to lower costs for your road.

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# OAKITE RAILWAY SERVICE DIVISION

Trade Mark Reg. U. S. Pat. Off.

In a hurry  for smooth-riding freight cars?

Get them now!

INSTALL

A S F

You can enjoy the advantages and savings of longer spring travel *now*, by installing the A.S.F. Ride-Control Package in your present rolling stock.

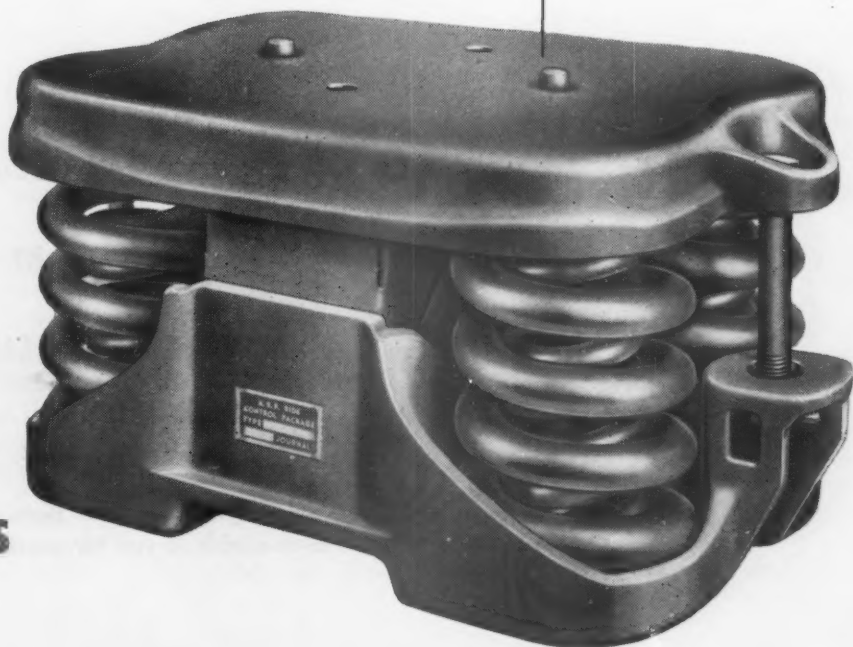
The Ride-Control Package is a complete spring group with built-in 3-way friction control (the famous A.S.F. Ride-Control principle). The unit comes completely assembled, is installed as a unit in place of the present spring group.

This Package gives  $2\frac{1}{2}$  to 3 inches of controlled spring travel, in place of the AAR-standard  $1\frac{9}{16}$  to  $1\frac{3}{8}$  inches. Separate Ride-Control springs provide constant pressure on hardened friction surfaces to control movement in all three directions.

Cost is low—about \$160 per car set—but it means big savings. Ride-Control helps protect lading and cut claims. It helps protect rolling stock and cut repair costs. It helps protect roadbed and cut track maintenance. You can't lose! And you can have it now!

Talk it over with your A.S.F. representative and ask him for all the details; or write American Steel Foundries, 400 North Michigan Ave., Chicago 11, Illinois.

RIDE-CONTROL<sup>®</sup> PACKAGES



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## HOW MUCH NET OPERATING INCOME?

The decision of the Interstate Commerce Commission in the petition of the railways for a 15 per cent advance in freight rates — largely supporting the administrative agencies which opposed the increase — illustrates how negligible is the consideration given by government to transportation as a factor in defense. It is the duty of railroad management — as trustees not only for the owners of the railways but for the public interest in transportation — to expose by every effective means the dereliction of government in its handling of this case; and to persist in efforts to secure rates high enough to provide earnings adequate to the need.

How much net revenue can the railroads expect to earn under the I.C.C. decision — and how do these earnings compare with the sum needed to restore financial health to the railways? The latest month for which statistics of railway earnings and expenses are available is June. The net operating income earned by the railways in that month was about \$64 million. The authorized advances in freight rates make rates the following percentages higher than they were on June 30:

Eastern district .....	4.3%
Pocahontas region .....	4.2
Southern district .....	3.8
Western district .....	3.9

These advances, if applied to freight traffic in June, would have increased freight earnings by \$29 million. The addition to net operating income of this entire increase in freight earnings would have made net operating income in June \$93 million. In years within which no abnormal fluctuations occur slightly more than 8 per cent of annual net operating income is earned in June. Hence, this estimate of \$93 million for June would appear to forecast annual net operating income at a rate of almost \$1,100 million. But an estimate of this much would be excessive, because — to give only one important reason — the estimate makes no allowance for increased federal taxes which come out of whatever increase occurs in net earnings before taxes.

It follows that any reasonable estimate of future net operating income derived from the new rates — in the

absence of a large increase in traffic — must be less than \$1,100 million annually. To demonstrate to any person of the slightest economic intelligence the inadequacy of this amount of net operating income under present and prospective conditions, it should be sufficient to recall that net operating income averaged \$1,018 million annually as long ago as in the decade 1921-1930, inclusive. The close connection between adequacy of earnings and expenditures for additions and betterments — as shown in the Twenties, Thirties and Forties — conclusively proved that it was in the national interest for the railways to earn an average of more than \$1 billion annually then. But great changes have occurred since a little over \$1 billion constituted adequate earnings for the railways. For example, the railways must now spend \$2 to buy labor and materials which in 1921-1930 they could buy for \$1. They can buy labor and materials for expansion and improvements, directly and indirectly, *only* from net operating income. It follows that, if they need to buy as much labor and materials for these purposes as they did in 1921-1930, they need about *twice as many dollars* of net operating income today as they needed in the Twenties.

### Improvement Needs Continue

But do they need to buy as much labor and materials for improvements and expansion as in 1921-1930? The best judges of that are the railroad managements; and the managements are straining all their resources to spend more than twice as many dollars in buying labor, equipment and materials for improvements and expansion than were ever spent for these purposes in any previous period. Nobody criticizes these expenditures — the only criticism ever heard in this regard is that the expenditures have not been greater.

It is plainly impossible for the railways to continue an adequate program of improvements and expansion with an annual net operating income no larger than that which will be produced by the rate increase the I.C.C. has authorized. The government — as represented, not

only by the I.C.C., but by the administrative departments which intervened in opposition to advances in freight rates — has shown no appreciation of the need of the nation for dependable transportation; and of the necessary connection between adequate railway earnings and the supply of transportation facilities. The duty devolves, therefore, upon railway managements to employ more dramatic and forceful means for educating the commission and other departments of government in the essential facts of the situation.

### Railroads Should Act—Fast!

If, as seems all too likely, the regulatory and executive branches of the government prove themselves politically too timid to deal forthrightly with this simple problem in elementary economics, then the railroads will have to take the issue to Congress and the electorate. The industry will have to move fast, too — because, if a serious shortage of transportation should occur at a critical time because of the continued starvation the railroads are enduring, it will be the managements, not the bureaucrats, who will get the blame. A man who is robbed and doesn't holler becomes, in a sense, an accomplice of the thief.

#### INCREASE IN FREIGHT REVENUE BY TERRITORIES BASED ON JUNE 1951

	Freight Revenue	% Inc. in Rates	Inc. in Freight Rev.
Eastern district .....	\$266,039,891	4.3	\$11,439,715
Poconchos region .....	49,913,249	4.2	2,096,356
Southern region .....	97,387,612	3.8	3,700,729
Western district .....	297,391,638	3.9	11,598,274
United States .....	710,732,390	4.06	28,835,074

## CAN JOURNAL BOXES BE REPACKED TOO OFTEN?

Opinion is not unanimous that hot boxes will be reduced as a result of the recent regulation shortening the interval between freight-car journal repacking from 15 months to 12 months. In the eyes of more than one car foreman, more, not fewer, hot boxes will occur because of this action. The reasons given for thinking so cannot be lightly dismissed.

For example: It takes several months after packing for the waste to settle down and pack down. Once it has settled down, the waste is thoroughly saturated with the lubricating oil, which not only weights it down and helps it to stay in place better, but increases its lubricating ability. The top-most portion of the waste, in contact with the journal, contains plenty of oil. By contrast, a box recently repacked will usually have dry waste near the top. Some opinion holds that this serves to remove from the journal what oil might be on it, rather than continually to apply the oil it needs.

This opinion cannot be readily verified without road or laboratory test. But the ability of longer-packed waste to hold itself better in place can be checked in any car

yard. Take a handful of waste out of a newly packed box and shake it vigorously. Short strands will flutter off to the ground like a faked Hollywood snow storm. Take another handful from a box that has been packed six months previously and only a few short strands will fall out.

It would be interesting to learn whether or not journal bearing troubles occur more frequently during any particular interval after repacking—the first two months, the last three months, or some intermediate period. The comparatively dry top section of newly packed waste may or may not interfere with the lubricating ability of the packing. The greater preponderance of loose short ends, may or may not increase the probability of waste grabs. It should be both easy and worth while to find out if these *apparent* possible sources of trouble are or are not an appreciable factor in causing hot boxes.

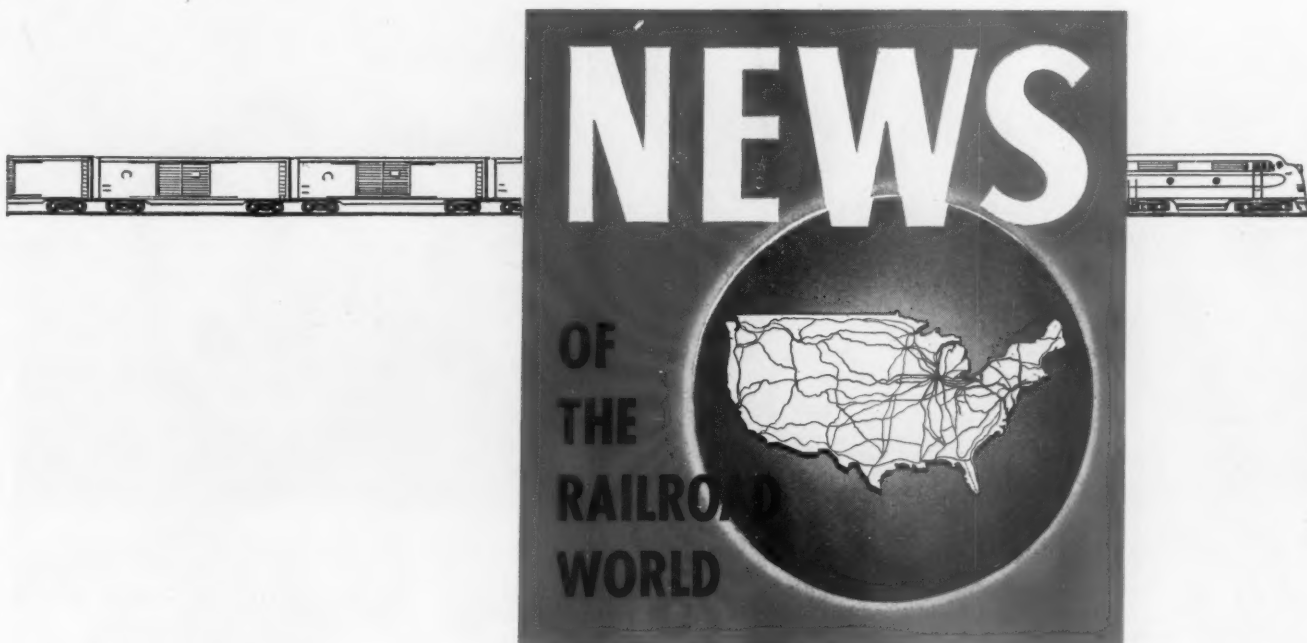
## TRUCKING'S DIFFERENT—WHEN YOU HAVE TO MAINTAIN YOUR ROAD

A world of significance was buried in a recent authorization by the Interstate Commerce Commission for construction by the West Virginia Northern of a new 5.8-mile branch to serve about ten coal mines. The plea for authorization was based principally on the fact that the present cost of trucking coal from the mines to some 21 sidings on the W.V.N.'s existing line was higher by some 40 to 50 cents a ton than movement would be over the new railroad.

This might come as a surprise, in view of the talk these days that trucking is cheaper than railroading for short hauls—even for bulk commodities. The increase in trucking of lumber, coal and rock products had seemed to bear out the contention. Why, then, the difference in West Virginia?

We come to the nub of the issue in the I.C.C. report. It appears that the trucking which would be replaced by the rail line takes place over roads *which must be repaired by the truck operator*. The present movement by road, remarks the commission, "involves the use of a large number of trucks and the services of from ten to twelve men engaged in repairing roads. The proposed branch would enable the coal company to discontinue the use of 8 or 10 trucks, and to reduce the number of men repairing the truck roads by at least 7, which would decrease the number carried on the payroll by not less than 15, and reduce the cost of moving the coal to the railroad by 40 to 50 cents a ton."

When the taxpayers don't keep the roads up, "the flanged wheel on the steel rail" is cheaper. The dissimilar methods used in this country to finance highways and railways is undoubtedly shifting a lot of transportation work from a more economical agency to one which is less economical—which is *not* the route toward continually rising living standards for America.



## How 1949 Traffic Paid Overhead Costs

The Manufactures and Miscellaneous commodity group in 1949 accounted for only 35.6 per cent of all carload revenue ton-miles, but contributed 64.4 per cent toward payment of the railroads' "overhead burden." This is shown in a study released last week by the Bureau of Accounts and Cost Finding of the Interstate Commerce Commission.

The M. and M. group led all others as a contributor to 1949 overhead payments. Second largest contributor to the overhead fund was the Products of Mines group. Its contribution was 14.7 per cent, although it accounted for 35.3 per cent of revenue ton-miles.

As to the other commodity groups, Products of Agriculture contributed 13.4 per cent to overhead payments and accounted for 17.1 per cent of the ton-miles; Products of Forests, 4.9 per cent and 9.2 per cent, respectively; and Animals and Products, 2.6 per cent and 2.8 per cent.

Issued as Statement No. 2-51, this study is entitled Distribution of the Rail Revenue Contribution by Commodity Groups—1949. It carries the usual disclaimer to the effect that it was issued "as information" and "has not been considered or adopted" by the commission.

The study is based on "the application of costs for the year 1949 to a one per cent waybill sample of carload traffic for the same year." A similar study was issued last October,

for the year 1948. (*Railway Age*, October 7, 1950, page 74.)

Purpose of the study, as stated in the introduction, is to provide a comparison of carload revenues and costs by commodity classes and groups. It indicates, generally, the extent by which revenue earned by each class or group exceeded or failed to meet the estimated out-of-pocket costs of handling the traffic.

That portion of 1949 traffic which was reflected in the one per cent waybill sample, yielded revenues of \$64,308,000. This exceeded out-of-pocket

costs by \$23,300,000. The latter figure, referred to as "revenue contribution," compares with \$26,188,000 in 1948.

A table of ratios of revenues to out-of-pocket costs, contained in the study, showed that each of the five commodity groups had 1949 revenues exceeding its out-of-pocket costs. The highest ratio was that of the Manufactures and Miscellaneous group — 192. The others were: Products of Agriculture, 142; Animals and Products, 128; Products of Mines, 129; and Products of Forests, 135.

The study also compared the revenue contribution of each group with its "apportioned overhead burden." The latter was determined by apportion-

## AIR MOVEMENT OF LETTER MAIL COSTS 23 TIMES AS MUCH AS VIA RAIL

In the year ended June 30, 1950, 19.3 million ton-miles of letter mail were moved by air (not including air parcel post) and 99 million ton-miles of letter mail by rail—or 83.7 per cent of the total. The Post Office Department got \$61 million of revenue and spent almost \$82 million on the letter mail by air, while it collected \$450 million and spent \$420 million on its letter mail by rail. In other words, there was a deficit on the letter mail by air of almost \$21 million, compared to a profit of \$30 million on the letter mail by rail.

The transportation cost (i.e., money

paid the railroads) was only a little over \$26 million for the 99 million ton-miles of letter mail moved by rail—but transportation cost was over \$38 million for the 19 million ton-miles moved by air.

Moreover, the Post Office Department got sorting accommodations for the mail moved by rail, but none for that moved by air. The cost of transportation to the Post Office Department was 4.44 cents per piece of letter mail moved by air and only 0.19 cent per piece for letter mail by rail. That is, the rail cost was only 4.3 per cent of the cost of air movement.





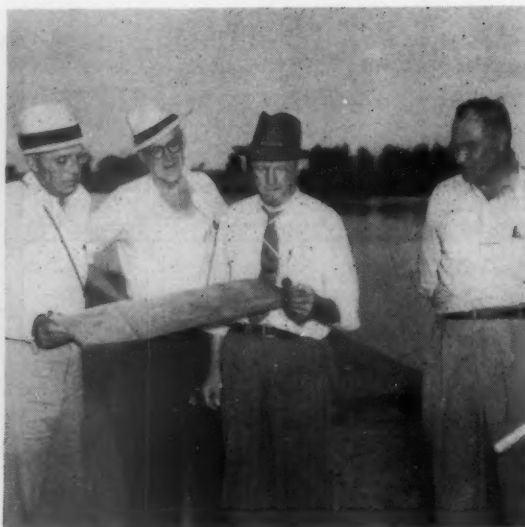
1

Along the now-subsided Missouri river between St. Charles, Mo., and Machens, a distance of about 12 miles, the right of way of the Missouri-Kansas-Texas forms a five-foot levee protecting thousands of acres of farmland that stretch along the west bank of the river. After holding back the rising waters for several days, on July 6 the embankment gave way in four places, one of which (pictured in two of the accompanying photos) measured 860 feet in length. When Katy engineers found that the waters had washed the embankment to a point 65 feet below

track level, they dubbed the washout "the big hole," and elected to build a "shoo fly" track about a mile in length to skirt the entire area.

1—"The big hole." From here it was 65 feet to the bottom. Note the sandbags on either side of the tracks indicating height to which waters rose.

2—Studying plans for the mile-long "shoo fly" are, left to right: P. O. Ellis, engineer-maintenance of way; O. L. Crain, superintendent of the road's Eastern district; K. H. Hanger, chief



2

engineer, and G. L. Staley, who is bridge engineer.

3—Heavy deposits of silt and chat covered the rails at many points. Here a 'dozer assists workmen to restore tracks for service.

4 and 5—At nearby Simpson, Mo., a bridge gang builds a temporary trestle preparatory to filling in the embankment which was washed out from under both the main track and a siding. The work was completed in a day's time.

tioning overhead costs on a ton and ton-miles basis — "without regard for ability to pay on the part of the various commodity classes."

There were also comparisons on various other bases in this part of the study dealing with 1949 traffic on a countrywide basis. The study contains two other sections. These discuss, in turn, "the territorial traffic movements of each commodity group," and "the commodity classes by their territorial movements."

### Canadian Rates Raised In Line with Ex Parte 175

Following the action of the Interstate Commerce Commission in granting railroads of the eastern United States a 9 per cent increase, and those in western United States a 6 per cent increase, in the Ex Parte 175 freight rate case, the Canadian Board of Transport Commissioners has authorized increases of 5 per cent in eastern Canada and 4 per cent in western Canada, on rail traffic between Canada and the United States and on some export-import traffic through Canadian ports. The Canadian increases become effective August 28 and follow the historical precedent

of changing such Canadian rates in line with changes in the United States.

The Canadian board generally followed the exceptions provided for in the I.C.C. decision and, in addition, provided that there should be no increase on the Canadian portion of hauls of coal and coke from the United States, or on the Canadian haul of certain petroleum products moving from the United States to western Canada. In view of the number of exceptions, no estimate has yet been made as to volume of traffic or revenues to be affected by the Canadian increases.

Authorization to increase export-import rates was given in cases where such increases were necessary to preserve existing competitive relationships between Canadian and United States ports.

### Leiserson Heads Temporary Railroad Wage Panel

Dr. William M. Leiserson, former chairman of the National Mediation Board, has been appointed chairman of a temporary emergency railroad wage panel to handle wage-stabilization cases in the railroad and air transport industries. The appointment was announced August 20 by Eric

Johnston, administrator of the Economic Stabilization Agency.

As the announcement explained, creation of the special panel was required by the Defense Production Act, as amended on July 31 (*Railway Age* of August 6, page 79). Administrator Johnston's order empowers Dr. Leiserson to perform the functions involved until other members of the temporary panel are appointed.

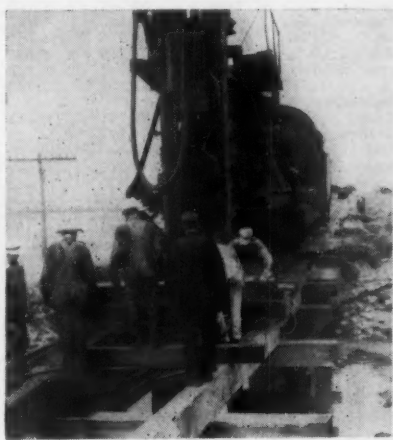
The temporary panel will function for 30 days, the E.S.A. announcement said. It added that, during that period, "the form of the continuing panel to carry out the mandates of the Defense Production Act with respect to the railway and air industries will be developed." The announcement explained that the panel will pass upon voluntary wage adjustments making certifications that adjustments which it approves will conform to E.S.A. stabilization policies. The panel's findings and certifications must be submitted to Administrator Johnston, whose approval is required before the proposed adjustments may be put in effect.

Disputed railroad and air-line wage cases remain subject to the Railway Labor Act, and the panel may take no action inconsistent with that act, E.S.A. pointed out. It also pointed out that arbitration or emergency boards

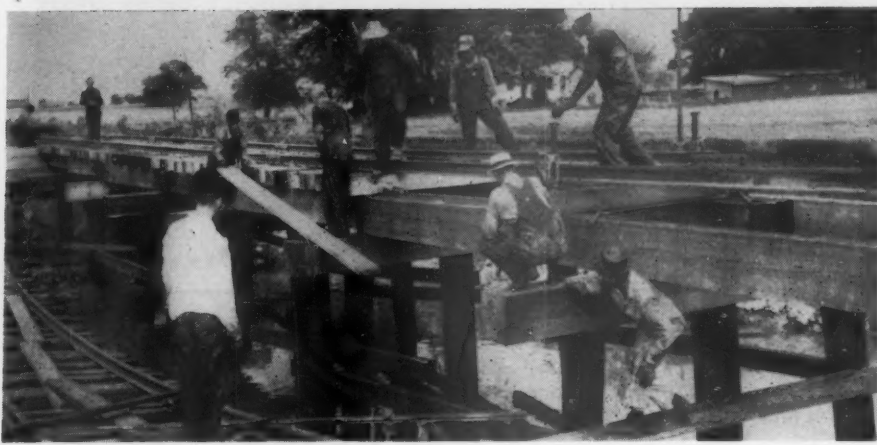
## THE KATY REBUILDS



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handling Railway-Labor-Act disputes "must specifically find and certify that any wage adjustments proposed in settlement of a dispute are consistent with stabilization policy." Under the Defense Production Act, such findings and certifications are also subject to the approval of the E.S.A. administrator.

### South Buffalo Strike Halts Steel Plants

A strike of approximately 300 brakemen and conductors on the South Buffalo, who reported "sick" on August 18, halting operations of that carrier, has forced a virtual shut-down of the Bethlehem Steel Company's plant at Lackawanna, N. Y. Curtailment of operations of other major industrial plants in the same area appeared likely when the strike remained unsettled as this issue of *Railway Age* went to press.

Representatives of the National Mediation Board were meeting with representatives of the S.B. and of the Brotherhood of Railroad Trainmen, which represents the striking employees, but early negotiations were reported "not too successful."

The work stoppage, according to a

### "CAREER DAY ON THE COFFEE CLUB"

On August 22, C. L. Patterson, vice-president and general manager of the Lehigh Valley, Frank H. Dugan, assistant superintendent of the New York Central, and Sergeant First Class James F. Kane, Army yardmaster at Camp Kilmer, N. J., were participants in a half-hour panel discussion over Television Station WATV, Newark, N. J.

The telecast was sponsored by "Career Day on the Coffee Club," a Don Costa-Sid Sanft production, with Dick Jennings acting as moderator. It was devoted principally to questions on railroad operation, and on differences between civilian and military railroad operation; and was designed primarily to explain to interested railroad employees the benefits of service in the Army Transportation Corps.

B.R.T. spokesman, was caused by "violations of working agreements and two unjust disciplinary cases."

Charles F. Dullenkopf, vice-president of the South Buffalo, made the following statement on August 21:

"The strike . . . is entirely unjustified. . . ."

"Actually, while there are a number of other claims involved, the gist of the dispute relates to discipline meted out to two employees for refusing to do their assigned work in accordance with orders of the railway company. Both employees were given hearings in accordance with the existing agreement between the company and the brotherhood. Each was given a suspension of 30 days, which is a very mild penalty for what was rank insubordination."

"The company is entirely willing to have the dispute determined by [the National Railroad Adjustment] Board or by any other impartial board in accordance with the provisions of the Railway Labor Act. The brotherhood has elected to seek to enforce its demands through a strike which was called without notice to the company and is in defiance of the Railway Labor Act and the government."

### Board Grants Pay Hike To Dispatchers Group

A board of arbitration has voted two-to-one to grant a basic pay increase of \$35.76 a month, plus other adjustments, to members of the American Train Dispatchers Association. The award is retroactive to February 1.

The settlement provides for cost-of-living adjustments of \$2.00 a month





PRINCESS ELIZABETH, ON A RECENT TOUR OF RAILWAY SHOPS at Swindon, England, was escorted (on her right) by Kenneth J. Cook, mechanical and electrical engineer, Western region, British Railways. Mr. Cook was head of a group of 23 railway mechanical officers from

10 nations who made a study tour of U. S. lines last fall. The tour, which included several other similar departmental groups, was sponsored by the Economic Cooperation Administration in collaboration with the Association of American Railroads

for each one-point change in the Consumers Price Index. As in other recent railroad wage cases, the base index is 178.

Since February the index has risen to 185.5. Quarterly settlements up through July 1 will thus add another \$14 a month to the pay of these employees.

C. H. Buford, who served on the three-man board as arbitrator for the railroads, was the dissenter. He said the pay increase "is not supported by evidence of record and is contrary to the wage stabilization policy of the government."

The two members favoring the increase were Frank P. Douglass, the board chairman, and J. B. Springer, who represented the employees.

There were two principal issues before the arbitration board. The dispatchers association was seeking a pay increase of \$50 a month, effective December 6, 1950, and additional paid vacation days for employees with more than five years' service.

The board denied the latter request on grounds that added paid vacation days "should not be granted during this period of critical emergency defense requirements."

The cost-of-living provisions in the award will remain in effect until October 1, 1953, and no proposals for changes in pay rates shall be initiated by these employees prior to that date. They may, however, seek so-called "annual improvement wage increases" after July 1, 1952, provided the government's wage stabilization policy permits.

This dispute entered the arbitration

phase June 28, after the parties failed to settle in mediation. Public hearings were held in Washington, D. C., from July 23 to August 3.

## Roads Asked Not to Scrap Heavier Type Locomotives

In a recent letter to the railroads, Defense Transport Administrator James K. Knudson asked the carriers not to scrap any usable coal-burning steam locomotives having 50,000 pounds of tractive effort or over. The request also covered such locomotives that can be made usable without excessive use of critical materials.

Roads receiving diesel-electric power and planning to scrap steam locomotives of this size should notify the D.T.A., Mr. Knudson said. He asked that such notification set forth in detail the facts and reasons scrapping is desired, and he promised D.T.A. would take prompt action on such notices.

Mr. Knudson said his letter to the railroads was to help them get a clearer understanding of what was desired at a time when they were being urged to increase their scrap contributions.

## Freight Car Loadings

Loadings of revenue freight in the week ended August 18 totaled 829,398 cars, the Association of American Railroads announced on August 23. This was an increase of 20,044 cars, or 2.5 per cent, compared with the previous week; a decrease of 21,842 cars, or 2.6 per cent, compared with the corresponding week last year; and

an increase of 98,183 cars, or 13.4 per cent, compared with the equivalent 1949 week.

Loadings of revenue freight for the week ended August 11 totaled 809,354 cars; the summary for that week, as compiled by the Car Service Division, A.A.R., follows:

REVENUE FREIGHT CAR LOADINGS			
For the week ended Saturday, August 11			
District	1951	1950	1949
Eastern .....	135,553	149,255	124,227
Allegheny .....	163,527	172,585	139,608
Pacahontas .....	64,005	64,233	48,410
Southern .....	122,299	130,458	109,218
Northwestern .....	139,579	140,347	134,671
Central Western .....	123,472	128,763	115,436
Southwestern .....	60,919	62,067	56,459
Total Western Districts ...	323,970	331,177	306,566
*Total All Roads	809,354	847,708	728,029
Commodities:			
Grain and grain products ...	53,975	54,488	55,118
Livestock .....	8,085	7,630	9,877
Coal .....	143,690	154,216	116,765
Coke .....	16,641	15,059	8,943
Forest products .....	48,682	51,841	41,243
Ore .....	88,625	84,389	71,313
Merchandise I.C.I. ....	73,401	88,211	90,611
Miscellaneous .....	376,255	391,874	334,159
August 11 ...	809,354	847,708	728,029
August 4 ...	813,366	837,430	716,863
July 28 ...	819,875	845,011	724,044
July 21 ...	804,570	830,076	718,516
July 14 ...	779,454	789,406	724,183
Cumulative total 32 weeks ..	24,532,269	22,588,291	22,944,038

**In Canada.**—Carloadings for the week ended August 11 totaled 76,179 cars, compared with 78,586 cars for the previous week and 75,461 cars for the corresponding week last year, according to the Dominion Bureau of Statistics.

	Revenue Cars Loaded	Total Cars Rec'd from Connections
Totals for Canada:		
August 11, 1951	76,179	32,443
August 12, 1950	75,461	34,053
Cumulative totals for Canada:		
August 11, 1951	2,528,367	1,117,118
August 12, 1950	2,338,721	992,717

## F.C.C. Clears Way for New Railroad Radio Facilities

Railroads in "substantial need" of long-range mobile-to-mobile radio communication will soon be able to obtain licenses permitting the use of mobile relay stations.

A new ruling by the Federal Communications Commission, effective September 24, clears the way for the new operation. Existing regulations have not permitted use of mobile relay stations in railroad radio service.

The F.C.C. said these stations can be used to relay messages automatically between cars or locomotives separated by distances up to 50 miles or more.

The new authorization applies only to mobile-to-mobile communication. The commission said one question still unsettled is under what circumstances, if any, the stations should be permitted to relay messages from a fixed station to distant mobile units.

In settling this question the F.C.C. plans to hold hearings. Parties desiring to appear and submit evidence



at the hearings must notify the commission by October 15.

For the time being, the mobile-to-mobile relay stations will be permitted to relay only messages received on frequencies above 47 megacycles. This is to minimize the problem of extra interference created by such stations.

The commission imposed the requirement of "substantial need" because mobile relay stations take up extra spectrum space. An extra frequency is required for the relay operation.

## I.C.C. Postpones Leasing Order at Court's Request

A telegram from Judge H. Nathan Swaim of the U. S. Court of Appeals, Seventh Circuit, has brought about further postponement of the recent "trip-leasing" order of the Interstate Commerce Commission.

The order now becomes effective November 1, instead of September 1, as previously scheduled. Judge Swaim asked for the delay to allow time for a three-judge court to hear and decide a suit seeking to have the commission order set aside.

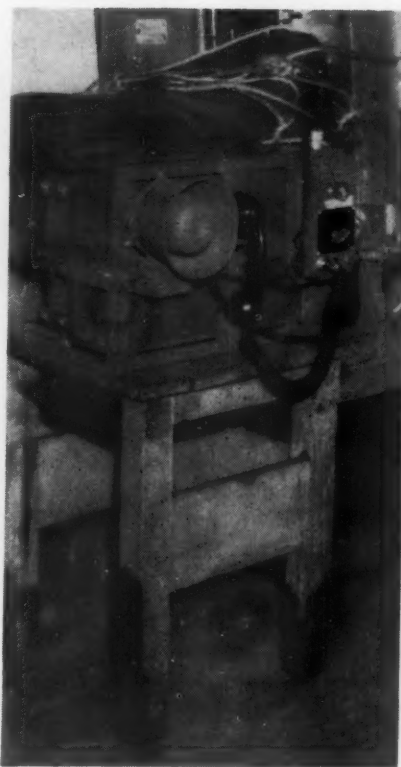
The I.C.C. order prescribes rules to govern the leasing and interchange of vehicles by common and contract truckers. (*Railway Age*, May 28, page 61.) It permits leasing only under 30-day contracts. The commission recently denied requests for modification of the order and the proposed rules.

Court action was initiated in the federal court at Indianapolis, Ind., by 21 motor carriers. It was the filing of this action that prompted Judge Swaim's telegram to the commission. Similar court actions have since been filed in the U. S. District Courts at Detroit, Mich., and Birmingham, Ala.

## Radio Helps Rock Island Pull Out of Flood

Emergency installations of radio helped the Chicago, Rock Island & Pacific to cope with the recent record-breaking Kansas floods, and ensuing restoration work, throughout an extended period when telegraph and telephone pole lines in the area were out of service.

For the most part, the radio equipment was borrowed from that regularly used in the Rock Island's system of two-way head-to-rear radio train communication. This equipment, made by Motorola, operates at 161.61 mc. The 30-watt sets, ordinarily used on locomotives, were set up temporarily, throughout a 100-mile area, as fixed stations in offices at Topeka, Manhattan, McFarland, Maple Hill, Valencia and Kansas City. Twenty walkie-talkie sets, ordinarily used on cabooses, were issued to railroad officers, supervisors, foremen and others who went out on foot, in boats, in automobiles and on track motor cars to determine the extent to which rail-



Emergency radio on bench above flood line in Manhattan, Kan., station

road property had been damaged by flood, and then to plan and carry to completion the work involved in restoring the railroad to normal operation.

At Topeka, the emergency radio set was in the passenger agent's office on the fourth floor of an office building, with the antenna on the penthouse on the seventh floor. At Kansas City, the radio was on the 34th floor of the Fidelity building, with the antenna on the roof. Radio communication was maintained between Kansas City and Topeka, as well as between the other fixed stations. Men in the field with walkie-talkie sets communicated with each other and with the fixed stations. By using an 8-foot antenna on a track motor car, the walkie-talkie set on this car had a range up to 13 miles when operating with fixed stations. Company automobiles and trucks were equipped with walkie-talkies, as were also the foremen on bridge, track and signal crews.

As a result of conversation by radio, numerous manpower, equipment and material problems were instantly decided. Without radio, a complete picture of the damage could not have been obtained for several days, and rehabilitation work would have required more time.

## Gross Revenue in July 4.3% Above Last Year

From preliminary reports of 82 Class I railroads, representing 81.1 per cent of total operating revenues,

the Association of American Railroads has estimated that July gross amounted to \$652,718,326, an increase of 4.3 per cent above the \$625,937,781 reported for the same 1950 month. Estimated July freight revenue was \$538,041,186, as compared with July 1950's \$519,481,962, an increase of 3.6 per cent. Estimated passenger revenue was \$65,674,433, as compared with \$61,916,041, an increase of 6.1 per cent. All other revenue was up 10 per cent — \$49,002,707 as compared with \$44,539,778.

## Car Ownership Decreased Slightly in July

There was in July a net decrease in freight-car ownership by Class I railroads and their car-line affiliates, according to figures presented by Chairman Arthur H. Gass of the Car Service Division, Association of American Railroads, in his latest monthly review of the "National Transportation Situation."

Mr. Gass noted that this ownership loss was the first since November, 1950. He attributed it to strikes and floods which caused shutdowns of carbuilding plants. The Class I roads and their car-line affiliates installed only 4,309 new freight cars in July, when 5,052 cars were retired.

"Because of the loss in ownership, together with an increase in the number of cars awaiting repairs," Mr. Gass continued, "there were 7,878 fewer serviceable cars available on August 1 than on July 1, although a comparison with a year ago shows an increase of nearly 41,000 in serviceable ownership. . . ."

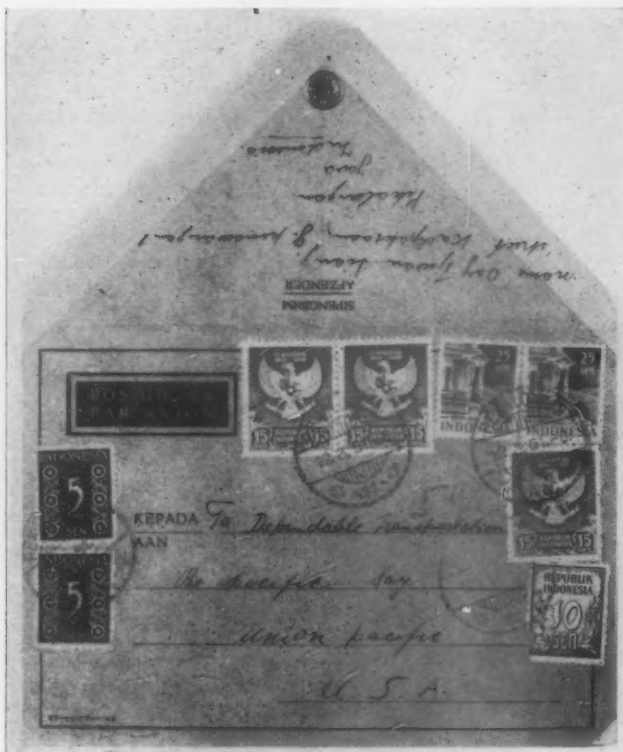
"Installations of new locomotives also dropped sharply in July, the total of 174 being the smallest for any of the past 12 months. It is understood that this decline was due at least in part to temporary shutting down of some of the locomotive plants for annual vacations."

In further comment on the locomotive situation, the C.S.D. chairman said that diesel-electrics accounted for 52 per cent of the freight service, 63 per cent of the passenger service, and 67 per cent of the yard service performed on Class I roads in May. Mr. Gass added that there are now 19 Class (Continued on page 57)

## MORE NEWS ON PAGE 57

Additional general news appears on page 57 followed by regular news departments, which begin on the following pages:

Supply Trade .....	57
Equipment & Supplies .....	58
Construction .....	60
Abandonments .....	60
Car Service .....	60
Financial .....	61
Railway Officers .....	62



PROOF OF AN ADVERTISING MAN'S DREAM (left)—that he can develop a slogan which will reach to the far corners of the earth. The slogan "Be Specific . . . Say Union Pacific," adopted more than a decade ago, was used to address this letter from an Indonesian railroad "fan." THIS POSTER

**Confidence** IN ITS FUTURE AND THE FUTURE OF THE WEST WARRANTS **UNION PACIFIC** IN SPENDING \$250,000,000 FOR NEW EQUIPMENT AND IMPROVED FACILITIES . . .

This *Improvement Program* is of personal interest to you. It means that you can feel confident in the security of YOUR future.

**AVOID** EXCESSIVE COUPLING IMPACTS THAT DAMAGE FREIGHT . . . RETAIN THE CONFIDENCE OF SHIPPERS IN OUR SERVICE . . .

A Good Rule to Remember

*Make no coupling in excess of 4 M.P.H.*

Freight Claim Dep't... Union Pacific Railroad  
O. J. WULLSTEIN, GENERAL FREIGHT CLAIM AGENT  
OMAHA, NEBRASKA

(right)—prepared for the freight claim department by the advertising department—illustrates the part the advertising and public relations departments play as a channel of communication to employees

## How Union Pacific answers the question:

The Union Pacific—recognizing that advertising and public relations are closely allied, yet not the same—deems it advisable to have a specialized organization for each function. The key to the success of this plan is the high degree of cooperation and teamwork which has been developed by the two departments. The company's success in maintaining good contacts with the public and open "lines of communication" between management and employees are visible evidence of the work done by the public relations department. The advertising department's work is known, among other things, for its prudent, yet extensive, advertising coverage and for a calculated liberal use of natural color photographs.

Although they are organized as independent units, the work of the two departments is carefully integrated. This close relationship stems from the top: Horace B. Northcott, general advertising manager, and William R. Moore, general director of public relations, share the same private office at system headquarters in Omaha. This encourages an exchange of information and a degree of cooperation which otherwise would be hard to achieve.

"Press agency" is but a part of the U.P.'s public relations department. True, it is active as a dispenser of news and information on the railroad and its doings—often thought by the uninitiated to be the sole duty of the department. But it is equally active in less well-known or understood activities of public relations.

## Do Public Relations

Being a "good neighbor," respected and appreciated, is the final goal of U.P. public relations and institutional advertising work. But the U.P. believes such relations are the outgrowth of enlightened management, and not the product of a special "publicity" organization. The public judges the railroad by what it *does*; not by what it *says*. Consultation with management—at all levels—in the conduct of the multitude of details which affect public opinion is an important, but little known, facet of public relations work in the U.P., as in other companies.

In such a large enterprise as the Union Pacific, the primary job is one of marshalling the already effective efforts of thousands of officers and employees into a homogeneous whole, giving the railroad an individual personality. It is axiomatic that the more successful this effort is, the less fuss and feathers need be displayed about "publicity" as such. The measure of success is what people think about the railroad—not "how much stuff is poured out" or how ingeniously it is conceived.

Quick, unencumbered "communication" between management and employees is another "P.R." responsibility.





**AN OUTSTANDING HISTORICAL RAILROAD MUSEUM** is maintained by the Union Pacific in its Omaha general office building. It is administered by the public relations department. Because it was the eastern portion of the country's first "transcontinental," the company is frequently asked historical questions, all of which are handled by the curator.

Motion picture producers frequently turn to the U. P. for authentic and detailed historical railroad information for use in various pictures, all of which is prepared by the museum staff. The heavy silver service in the glass case under the clock on the right is from the private car which was built for President Lincoln but which he never used

## and Advertising Go Together?

***Independent, but coordinated, public relations and advertising departments demonstrate U.P. management technique***

Here the department is never the prime mover—but the efficient channel of "communication" transmitting the "messages" with which it is supplied. The U.P. has no employee publications, as such, preferring to maintain contacts by the medium best adapted to the particular problem at hand. In some cases this may take the form of news releases aimed to papers in employees' home towns, in others it might be posters, bulletins, or letters. Employee promotions, retirements and interesting activities are publicized. The U.P. feels this method has been successful in keeping employees well posted in the affairs of their company. The passenger traffic department issues a monthly printed Bulletin to 33,000 employees, which features scenic attractions and passenger service items. Retired employees are kept "in the swim" through the medium of railroad-supported "Old Timers" clubs.

Advertising is an "old art" on the Union Pacific. Because it was a pioneer road in pioneer country—largely unsettled and undeveloped—it had to engage in extensive and intensive advertising from the very beginning. Extensive advertising was one of the means used to lure settlers and industry to U.P. territory at a time when large-scale advertising, as we are familiar with it today, was virtually unknown. The company has, therefore, amassed a great deal of "know how" in the intervening years which it is using to good advantage today.

In 1950, the Union Pacific spent \$2,572,953.25 for advertising. While the total amount seems high to railroaders—it is one of the higher railroad advertising budgets—the ratio of advertising expenditures to revenues is considerably under the average for other industries in equally competitive fields—and including such





*You pay only once ... see!*

No faa-lin', I'm really serious about this. When you ship by rail—by Union Pacific—you pay the freight charges and that's the end of it! We don't expect the taxpayers to maintain our right-of-way for us. In fact, we recently set aside over 100 million dollars just for that purpose.

And yet all of us, railroads and their employees too, pay our fair share of taxes, a part of which do provide

and maintain facilities used by other forms of transportation with which we compete.

By the way, we're not only set up to give you efficient freight service... we have traffic specialists, from coast to coast, whose information and helpful suggestions are yours for the asking. Call your nearest Union Pacific freight representative at any time.

*Be Specific - Ship "Union Pacific"*

A sample of the type of ad being run currently for the promotion of freight service and facilities

### Union Pacific's 1949 Advertising Expenditures, and Ratio of Expenditures to Revenues, as Compared with Other Large Concerns

The figures shown are as given by the Publisher's Information Service. They are based on the total advertising carried in 81 general magazines, 6 farm magazines, 7 Sunday magazine sections of newspapers, 984 daily (including Sunday) newspapers, 4 radio networks and 4 television networks. The figure shown for the Union Pacific is not the entire advertising appropriation, but is figured for the same media as for the other companies shown. Not included are advertising expenses for timetables, calendars, travel booklets, circulars, posters, window displays and other miscellaneous promotional advertising. (1950 figures not yet available.)

	Total Revenues	Net Income Before Dividends	Adver- tising Bought	Advertising Percentage of Total Revenue
Coca Cola .....	\$230,707,000	\$35,991,000	\$4,573,369	1.98
Distillers Corporation- Seagram's Ltd. ....	726,950,000	34,766,000	12,364,385	1.70
R. J. Reynolds Tobacco .....	746,345,000	37,520,000	12,513,788	1.68
American Airlines .....	103,205,873	6,511,237	1,690,745	1.64
Greyhound Corporation .....	134,177,000	11,365,000	1,906,077	1.42
American Tobacco .....	858,996,000	42,512,000	11,576,345	1.37
Studebaker .....	473,119,000	27,564,000	4,601,736	.98
United Air Lines .....	91,553,839	2,249,405	808,614	.88
Eastman Kodak .....	396,233,000	49,401,000	2,523,182	.64
Westinghouse Electric .....	945,699,000	65,092,000	5,227,761	.55
Union Pacific .....	398,823,082	49,694,538	1,124,037	.28
Pacific Intermountain Express .....	14,125,629	1,900,429	32,730	.23

active railroad competitors as Greyhound Lines, United Air Lines, American Airlines, and Pacific Intermountain Express. A statistical comparison is shown in the accompanying table.

Although the largest portion of the 1950 advertising space budget was used to promote passenger travel, some of this advertising is considered as partially institutional, and is prepared with a careful eye on the freight market. A portion of the budget is allocated to freight service and allied advertising, and a portion to strictly institutional advertising.

A good example of how passenger advertising can be prepared with an eye to the shippers' market is the series of dining car promotional advertisements which have been appearing in national magazines since last October. The primary purpose of this campaign, of course, is to increase travel on U.P. passenger trains by featuring an important part of passenger service in which the U.P. takes particular pride—good food properly prepared. Each month a "special meal" ad—featuring a natural color photograph—appears in at least one national magazine. The special meal is also merchandised in the dining car by natural color menu clip-ons, and by promotional efforts of the stewards and waiters. But, in addition to producing a remarkable increase in dining car calls for the advertised items, this program has developed considerable interest among packers and processors of foodstuffs—all important shippers. The public relations department has supported the campaign by supplying appropriate trade papers with news releases tying in with the special meals. Some of these food processors—and shippers—have been so pleased with the U.P.'s merchandising of their product that they have actually undertaken to route more freight over the U.P.'s lines. (A sample advertisement in this series appeared in the May 21 Passenger Traffic Issue of *Railway Age*, page 119.)

### "Baby Series"

Another interesting U.P. advertising campaign is directed toward the promotion of its freight service and facilities. This series of ads—known in U.P. circles as the "baby series" because all of the ads center around photographs of infants—are scheduled in industrial and business publications reaching traffic executives and top management, and in on-line newspapers as an additional means of reaching shippers in the "U.P. West," and to offset truck competition. Reprints of these ads are mailed out to a selected list of shippers and prospective shippers.

As a means of promoting the industrial activity of the territory it serves, Union Pacific also conducts an industrial development advertising campaign in co-operation with the industrial development department. Ads in this campaign feature available industrial sites and locations served by the road. The ads are varied for different locations and territories, and the media used are selected according to the task at hand—sometimes national business publications, and at other times specific trade journals or carefully selected newspapers. At one time or another this campaign has featured almost every industrial center of importance served by the U.P. from Missouri and Iowa west to California and Washington. The newest and largest of these projects, and the one currently receiving the most advertising, is the Fairfax Industrial District in North Kansas City, Kan.

Other campaigns support the agricultural development program, import and export department, and livestock traffic.

U.P. passenger service advertising is nationally known

—and has been for years—because of its excellent use of natural color photographs. The road claims to be the first line to make extensive use of natural color in its advertising. The widespread use of color, together with the consistent quality of reproduction insisted upon by the U.P., have led many advertising men to the U.P.'s door to ask questions. Although the use of color costs more than corresponding copy in black and white, Mr. Northcott explains that on a cost-per-reader basis, the Union Pacific finds ads featuring natural color produce better returns because they attract and hold reader attention. Color is also particularly effective in portraying the naturally colorful regions of Southern Utah, Arizona, Sun Valley and other vacation areas.

The natural color reproductions in U.P. ads—or, for that matter, in any color ads—are no better than the original color photographs from which they are reprinted. All U.P. color photos are taken and processed by photographers working for the public relations department. The wide acclaim given U.P. ads is partly due to the quality of the original photographs.

Advertisements featuring natural color illustrations are used primarily for the promotion of passenger service, of Sun Valley—the U.P. resort near Ketchum, Idaho—and of the Union Pacific-owned facilities in Zion, Bryce Canyon and Grand Canyon National Parks.

From surveys the railroad found that March, April and May are the months when the large majority of travelers make their vacation plans. Therefore the Union Pacific schedules the greater part of its vacation travel advertising—featuring places to go—during this three-month period, with the remainder used chiefly in the fall to stimulate winter season travel to the Pacific Coast, Las Vegas, Boulder Dam and Sun Valley.

### **"Publicity Hounds"**

The U.P., like many railroads, is unashamedly a "hound for publicity." It seeks to keep its name in the papers, magazines and movies and on radio and television. The means which it uses to achieve this end are varied. But in all cases the public relations department merely reports the news—it never creates it. The credit for the U.P.'s newsworthy improvements in freight and passenger service—such as the new dollar-sized book tickets, improved livestock service, agricultural development, etc. . . . goes to the individual departments concerned. Public relations merely made them better known.

This type of work grows steadily more difficult as competition for the public's attention increases. "Public relations" is staffed with men and women who received their primary training in newspaper and radio work and therefore are familiar with the requirements and technique of handling news. These specialists form a sort of "news bureau" and keep an eye on all of the railroad's activities so that any newsworthy happening or occurrence of significance or interest can be reported promptly to the proper newspapers, magazines and radio stations. Only releases of genuine news interest are sent out. Story ideas are written and rewritten for individual papers in each locality so as to keep local touch and flavor, and so as to give each paper something different. Broadcast, stereotyped releases are avoided.

"Public relations" is charged with keeping the railroad "out of trouble." It must see that bad news is correctly reported and must work to keep it from being sensationalized. This problem is met by making a point of getting this type of news to the papers and wire and radio services fast and accurately—before they can find out about it themselves. With an established reputation



**U. P. FASHION PHOTO IN THE MAKING.** A representative from the public relations department at Los Angeles—who is wearing a dress made from the U.P.-inspired photoprint fabric with scenes from California's vacationland as well as pictures of the U.P.'s train "City of Los Angeles"—directs a model, while the photographer (lower left) uses a light meter to obtain the proper camera setting and exposure

for speed and honesty it is then easier to get the news services to hold back on stories until all facts are available. The same policy is followed with respect to photographs.

The department has several still and motion-picture photographers who specialize in finding material of pictorial interest for release to the press—and television. The U.P. is proud of its timely local news and photographic coverage. This is accomplished by having each office originate news and photo releases for local—as well as system—consumption. This technique is designed to help the road identify itself more intimately at local levels. In larger cities, the accounts and photos furnished different newspapers are often deliberately varied. Hence, in accepting a U.P. release, a paper will know that its account will be "different."

### **Special Projects**

The U.P. public relations and advertising departments engage in a diversity of special and unusual projects—many of them in cooperation with other departments. For example, they regularly handle publicity and advertising for the freight claim department's loss and damage



prevention program (described in *Railway Age*, April 2, page 40), together with the mechanics of printing and distributing the freight claim department's magazine, *News and Views*; take care of all publicity and advertising for the traffic department's agricultural development car (now in its fifth year) on its annual tour of the system; handle the creation, distribution and display of motion pictures on "safe driving" (for school children) and safety practices on behalf of the police department; etc. The list is long.

The passenger department is constantly working to stimulate interest in the "U.P. West"—thereby seeking to garner increased travel on U.P. trains. Women passenger representatives are maintained in the Chicago and Denver ticket offices for handling travel arrangements and providing a variety of services for women passengers. In addition, these women's travel representatives give talks before women's clubs, garden clubs, and other groups in the interest of stimulating travel.

### Lectures

"P.R." aids in this travel promotion through the full-time services of a trained lecturer. His itinerary is worked out in cooperation with the passenger department, and his talks—profusely illustrated with natural color slides—are carefully integrated with the passenger department's sales programs. Heavy advance bookings are indicative of the public reception of this feature.

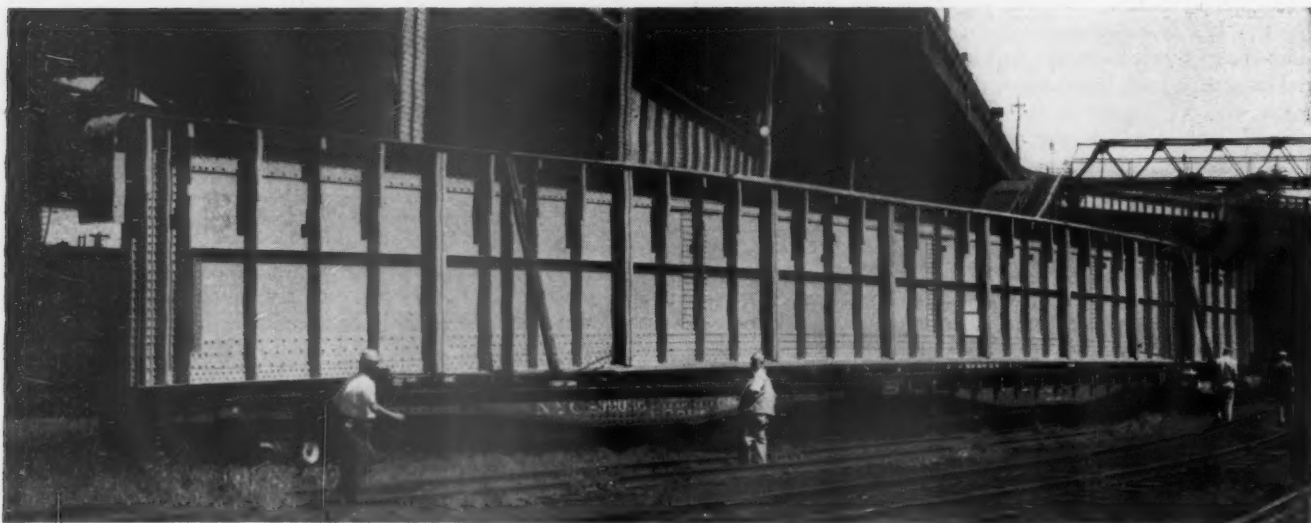
Recognizing that women are an important influence in the travel market, the "P.R." staff includes a woman who specializes in the fields of fashion and women's activities—and in working the "Union Pacific theme" into subjects of interest to women. Close contact and cooperation is maintained with radio, television, motion picture studios, fashion and women's magazines, newspaper women's pages, and with manufacturers and retailers of women's fashion items—always seeking new

places and ways of bringing the Union Pacific and its territory to the attention of women.

Some results of this specialized public relations work are: The introduction of "The Little Nugget suit" (named after the Little Nugget club car on the "City of Los Angeles")—created by couturier Georges of Hollywood—widely publicized and used to promote both the U.P. and the California apparel industry; the "Golden Spike show"—inspired by the historic driving of the golden spike which linked the U.P. to the Pacific coast in 1869; the "Little Nugget purse," "Streamliner swim suits," and a colorful photoprint fabric featuring the "City of Los Angeles" and views of California.

Frequently, personal contact is maintained with newspaper, magazine, radio and television outlets in Los Angeles, Chicago and New York. This "woman's angle specialist" makes radio and television appearances giving advice and information on "what to wear, where," and proper packing hints—as well as boosting travel via the U.P. All told this effort left the U.P. trade mark firmly imprinted on the fashion industry. The frequency with which fashion photographs—published in national magazines and syndicated newspaper features—have U.P. backgrounds is no accident, but rather the result of hard work by the public relations department.

In Omaha, a motion picture bureau makes and distributes movies on a wide variety of subjects ranging from employee education to travelogues. Some of the more interesting titles include "Look, Listen and Live," designed to teach safe driving habits to high school children, which is shown to an average of 40,000 pupils a month in schools throughout the west; "Thirsty Acres," illustrating how to make the best use of irrigation waters; and "Nature's Art Gallery," showing the strange geological formations of Zion, Bryce and Grand Canyon in the brilliance of their natural colors. In addition there is a series of "How to Do It" sequences for the training of employees in safe, more efficient work techniques.



SAID TO BE THE LARGEST SINGLE SHIPMENT ever to be handled by the New York Central in New York City, this giant steel girder is shown being received by the railroad in its West 72nd Street yard, Manhattan. Weighing 107 tons, the girder is 153 ft. 7 in. long and 11 ft. 5 in. high. It is the first of three main girders shipped to build the bridge of the Bronx River Parkway extension over the four tracks of the Central's Harlem division at Woodlawn, The Bronx. Five flat cars were required to carry the girder,

which was specially mounted on swivel points on the second and fourth cars, permitting it to ride over curves in the tracks. The girder, constructed by the Harris Structural Steel Company, was delivered across the Hudson river by car float to the Central by the Lehigh Valley. Because of its height of 15 ft. 6 in. from the top of the rail, a special route had to be mapped from West 72nd Street yard to Woodlawn. The girder was placed in position over the tracks at Woodlawn on the early morning of August 21



Observers do not try to hide while making grade crossing checks. They take vantage points in the open, where they can be seen



## A. C. L. Works to Eliminate Grade Crossing Accidents

The management of the Atlantic Coast Line, in May 1950, recognizing an alarming increase in grade crossing accidents throughout its territory, inaugurated a program designed materially to reduce such accidents. This program, popularly known on the Coast Line as the "Grade Crossing Safety Program," originated with the A.C.L.'s vice-president and general counsel, C. C. Howell, who collaborated with the vice-president—operations, L. S. Jeffords, in putting it into effect. The property protection department was selected, because it has trained representatives located at strategic points, to head the program and put it into operation, with the assistance of designated representatives from other departments. At a conference held in Wilmington, N. C., April 20, 1950, attended by representatives from all departments of the railroad and various local city and county officials, plans were discussed and an overall program adopted. The property protection department was authorized to proceed with the program on May 1, 1950.

The plan, which was adapted from a similar program in operation on the Baltimore & Ohio, called for trained observers to make observations periodically at all grade crossings on the railroad, with greater stress placed on crossings where there is a greater density of traffic. These observations are made during periods in which

there is some rail traffic over the crossing. When motorists are observed making crossings, in an unsafe manner, or flagrantly disregarding signs and signals, the license number of the vehicle is noted. The owner of the vehicle is then sent a courteous and friendly letter of warning by the railroad's captain of police on whose territory the observation was made, calling his attention to the unsafe manner of crossing and requesting his cooperation and that of members of his family, and his friends, in making the grade crossing safety program a success.

The observers also make a record of the number of vehicles and trains over the crossing during the period checked. Observations also are made as to the condition of the crossing and its approaches, type of crossing protection, condition of warning devices and signs, any obstructions to the motorist's clear view of approaching trains and whether or not it is feasible to have such obstructions removed, and any irregularities on the part of railroad employees. Unsafe conditions and employee violations are reported to the proper officers of the railroad for correction.

State, county, city and local law enforcement officers throughout the area served by the A.C.L. were contacted regarding the program and they are enthusiastically lending their support. In some instances these officers have



A Richmond Times Dispatch reporter rode the cab of an A.C.L. diesel-powered freight train and took photos through the windshield. His story played up such incidents as the man in the background running across the track in front of the train



A truck takes a chance



"Missed just this much"—An A.C.L. engineman indicates how close he came to hitting an automobile

gone further and made cases against motorists whom they have observed crossing in front of approaching trains and disregarding warning signals.

Newspapers in the territory have supported the program, have written editorials concerning its purposes, and have otherwise given it wide and favorable publicity. Newspaper reporters and radio commentators have ridden in the cabs of locomotives on fast passenger trains and have observed the heedless and reckless manner in which some motorists drive over crossings in the face of approaching trains. They have made their observations public through newspapers and over the air waves, and have called upon the motoring public to cooperate with the program, heed warning signs and signals, and drive safely over crossings for their own protection.

It is recognized that only a very small segment of the motoring public is being reached through the warning letters, so a recording has been prepared, with the cooperation of the railroad's public relations officer, dramatizing a typical grade crossing accident. It is proposed to broadcast this over radio stations in the territory as a public service.

A preliminary study of crossing accidents which occurred on the Coast Line system during 1949 revealed that 93.5 per cent involved local drivers who were familiar with the crossings. Figures furnished by the National Safety Council show that of the 3,209 grade crossing accidents throughout the country during 1949, the larger portion occurred during daylight hours; 35 per cent of them occurred at protected crossings; and 63 per cent involved trains traveling less than 30 miles per hour, and even some trains which were standing still. During the same year, the Coast Line paid out \$108,937.51 for deaths, injuries, and damage to property as a result of grade crossing accidents. This figure does not include the enormous expense incurred by the railroads in investigating, preparing cases, defending against suits, and court costs. This figure also does not include damage caused to crossing gates, signs, and signal apparatus damaged by motorists. For the year 1950, the property



Distinctive letterhead uses Coast Line purple on locomotive and cars, while crossing signs are red, white and black. Some drivers wrote appreciative replies

protection department investigated 128 cases involving \$7,271.75 of damage to Coast Line crossing gates and signals caused by motorists. Individual responsibility was placed in 71 instances, and \$2,974.98 was collected, at an estimated expense of \$806. Thus, the railroad was approximately \$5,000 loser in this one item alone.

Between May 1, 1950, and June 1 of this year, a total of 3,156 grade crossing checks were made under this program, and 113 warning letters were written to motorists who flagrantly disregarded signals.

No adverse criticism has been received from recipients of the warning letters, although the percentage of replies is small (about 6 per cent). Most of those who have replied were appreciative of the purpose of the program and letter, and expressed apology for their actions and promised cooperation. An interesting reply to a warning letter written to Mr. "X," received from Mrs. "X," read in part:

"May I offer my sincere thanks for the letter you sent to Mr. X. However, I was the driver of the car the time of the incident brought to your attention.

"Until your letter arrived I had not given the foolish mistake I made a second thought. I know I have read your letter a dozen times, and once again wish to offer my sincere thanks. It is wonderful to know that the railroads are attempting to prevent accidents, and you can be assured of my cooperation."

While the program has not been in effect long enough to evaluate the results, the Coast Line definitely feels that it has taken a step in the right direction. No decrease in the accident rate is yet discernible, but the A.C.L. feels that since this is a long range program, such results will come eventually. The railroad believes

RAIL 1-51 C70L. ATLANTIC COAST LINE RAILROAD COMPANY PROPERTY PROTECTION DEPARTMENT. Rocky Mount, N. C., August 10, 1950. (Place and date)

SUBJECT: CHECK OF STREET AND HIGHWAY CROSSINGS.

MR. M. M. DuCHAMPE:

In connection with this subject, I wish to report the following:

Crossing Checked: Western Branch Boulevard at or near Portsmouth, Va., about one-half mile south of Portsmouth Station. (Street or number of Highway) (Show distance from nearest station if not located in City or Town)

By: Sergeant H. A. Coward (Name of Officer making observation)

Duration of Check—from 11:50 A.M. to 12:30 P.M. Type of Crossing: Paved (Dirt or paved)

Condition of crossing and approaches: Good

Type of crossing protection: Automatic flashing signals and cross-arms (Automatic flashing signal, automatic gates, manually controlled, reflector, etc.)

Were warning devices operative and/or warning signs in place: Yes

(If not, give particulars)

Any obstruction to clear view of approaching trains: Yes. Service station on northeast corner. Bushes on southeast and northwest corners. Would be feasible to remove bushes with permission of owner.

Number of motor vehicles crossing over tracks: 153

License numbers of motor vehicles violating traffic regulations: (State license and number, and nature of violation)

Number of trains passing during check: 1

Irregularities observed in connection with operation of trains at crossings: None

Copied to: Supt. A. R. Brinkley. J. C. Clements Captain of Police

(COPY)

A typical highway crossing observation report. In this case the property owner whose shrubbery hindered the vision of motorists cooperated with the railroad and removed it

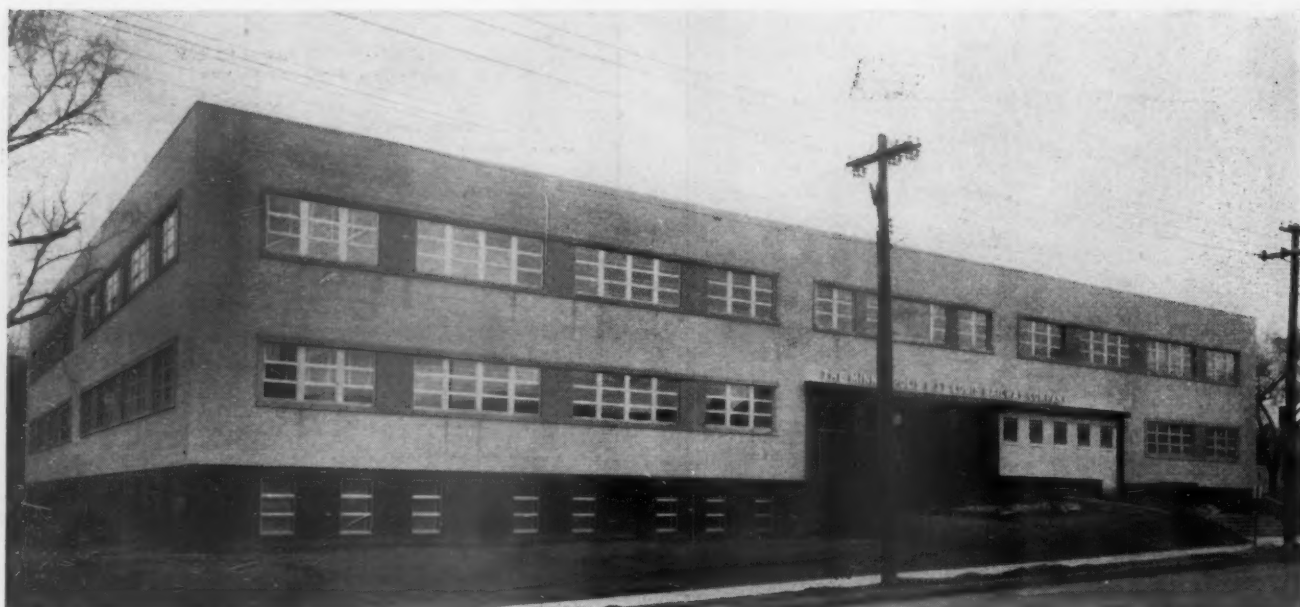
that its program not only should lower its financial liability from this type of accident, but is serving a definite humanitarian purpose.

The receipt of the warning letter should be an impressive lesson, not only to the motorists to whom it is addressed, but also to a wide circle of their families, friends, and acquaintances. The wide publicity received through newspapers, radio, by contact and by word of mouth with state, county and city authorities, and through the warning letters, has been favorable publicity for the railroad and should at least impress upon the authorities and the public that the railroad is doing something in the interest of the safety and well-being of the motoring public. If one life is saved as a result of the program, the Coast Line feels that its effort and money will have been well spent.

## "A SAFE RETIREMENT PLAN"

"The only kind of retirement plan that can mean anything to railroad people is one that is safe and sound, one that each employee looking toward retirement can trust to take care of him after his working days are done. Any plan which contemplates increased benefits, therefore, should be examined with the greatest care, to see whether it can be supported out of present tax rates levied upon both companies and employees, and whether it would preserve the financial safety of the retirement system. If it does not meet these tests, it should not be enacted.—Wayne A. Johnston, president, Illinois Central, in the road's "Things to Talk About" advertisement in the daily press for July.



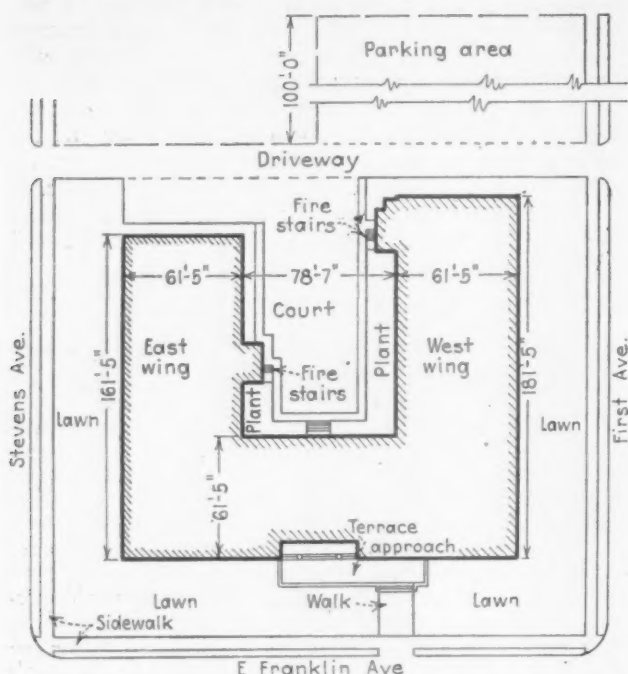


The new building, with its functional lines and modern finishing materials, presents an attractive appearance from East Franklin avenue

**Tired of Renting . . .**

## M. & St. L. Builds Home for General Offices

*Modern structure at edge of Minneapolis business district has advanced features of design, many of which are new to railway office buildings*



The office building occupies about half a city block, not including the private parking lot for employees

Executive officers of the Minneapolis & St. Louis and their staffs, numbering about 300 persons, are ensconced in a new general office building at Minneapolis, Minn., which represents the last word in design, construction and planning to obtain pleasant and comfortable surroundings. Completion of this attractive new home for its headquarters staff marks a milestone in the history of the M. & St. L. in that for the first time since the years immediately following construction of its first tracks in 1871, the railroad now owns the building occupied by its general offices. For a few years after it was organized, the road had offices in its own depot on Second street in Minneapolis. It then moved successively to rented quarters in the Boston block, the Metropolitan Life building, the Transportation building, and finally the Northwestern Bank building, where it was occupying nearly all of the sixth and seventh floors, with additional space on the street level, immediately prior to moving in to the new building.

To say that the new office building is modern and well designed is a generalization that does not do justice to the structure. Not only does it reflect present-day practice with respect to arrangement, decoration, lighting and general construction, but it also has some features that are largely new to railway office buildings. One of these is the fact that the air conditioning permits individual adjustment of the temperature in the various offices. Another is the provision, between the first and second floors and above the ceiling of the top floor, of an open space several feet deep, in which all wiring and piping are carried. A third is the provision of a moving stairway between the first and second floors.

Built at a cost of approximately \$1,000,000, the new building is a U-shaped structure on the edge of the down-



The main lobby (left) has walnut wall paneling, terrazzo floor, and recessed fluorescent fixtures. The reversible moving



stairway (right) linking the main lobby with the second floor is indicative of the up-to-date character of the building

Meetings of the road's directors are held in this room, adjacent to the president's office. Partition in background, between director's room and corridor, is structural glass



town business district in Minneapolis. It faces north on East Franklin avenue, where it has a frontage of 201 ft. The west wing, which has a length of 181 ft., extends along First avenue, while the east wing, 161 ft. long, extends along Stevens avenue. Directly behind the building is a paved private parking lot for employees, which has a capacity of about 75 cars. Additional parking space is available in the court between the legs of the U.

The building has a steel frame, concrete foundations and floors and brick walls, and has three floors. Since the natural ground slopes downward from First avenue to Stevens avenue, the lower level of the west wing is largely below ground, while the lower level of the east wing is sufficiently above ground to permit it to be lighted by conventional windows.

The exterior walls are of light cream-colored brick above a base of polished red Minnesota granite. The coping and trim around windows are of Bedford stone. All sash is aluminum, glazed with Thermopane glass,

and is of the projection type, so that the outside surfaces can be cleaned from the inside of the building.

To attract attention to it, the main entrance of the building is recessed 8 ft., and is approached from the exterior by a stone-floored terrace surrounded by a low balustrade. The trim around the main entrance and two columns in the recess are faced with red Minnesota granite. A broad flight of steps leads up to the terrace from the sidewalk on Franklin avenue.

The steel framework of the building involves transverse trusses supporting the second floor and the roof, which frame into wall trusses supported by steel columns. For fireproofing, the first and second floors have suspended ceilings of vermiculite plaster, 1 in. thick, on metal lath.

The second floor and roof trusses are all 3 ft. 6 in. deep, out-to-out of the steel. The space thus afforded, especially that between the first and second floors, provides areas for housing and concealing the air-conditioning ducts, as well as wiring for the electric, telephone





Areas for departmental staffs, such as that of the general accounting department shown here, are spacious and well lighted. The electrical system increases flexibility

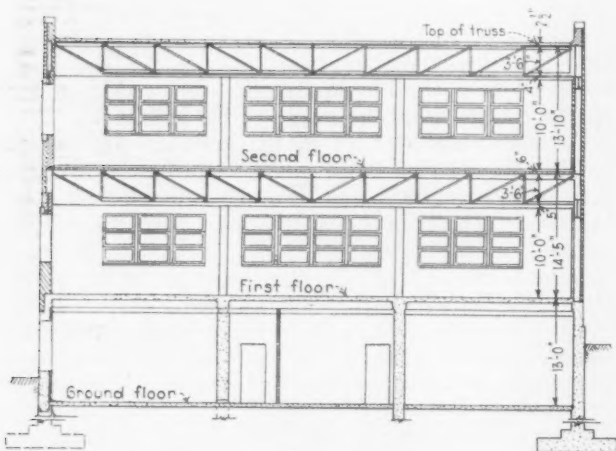


The office of L. C. Sprague, president, like those of other principal executives of the company, is located in a corner of the building

and buzzer systems. An electrical conduit system is laid in the floors so that the outlets can be changed as desired, permitting desks to be moved about freely.

Adequate provision is made in the building for housing the staffs of all headquarters departments of the road. In addition, space for the local office of the Northwest Shippers' Advisory Board is provided on the ground floor of the east wing. The offices of the president and other executive officers of the road are all placed at corners of the structure.

The lower floor of the west wing is actually the base-



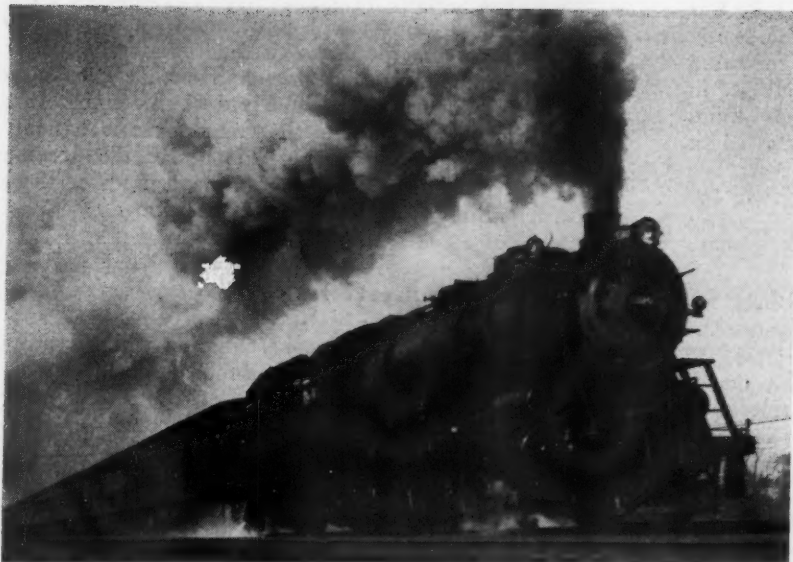
Typical cross section through the east wing of the building. By using trusses for supporting the second floor and the roof, space was afforded between the first and second floors, and above the ceiling of the second floor, for piping, conduits and wiring

ment of the building. Here is found the boiler room, record storage space, a room containing the air-conditioning equipment, a transformer vault, a room containing telephone equipment, and a paper-storage room. The boiler room has two oil-burning boilers which can be converted to gas in an emergency. The building is heated and air-conditioned by a conduit system which supplies 152 combination heating and air-conditioning units throughout the structure.

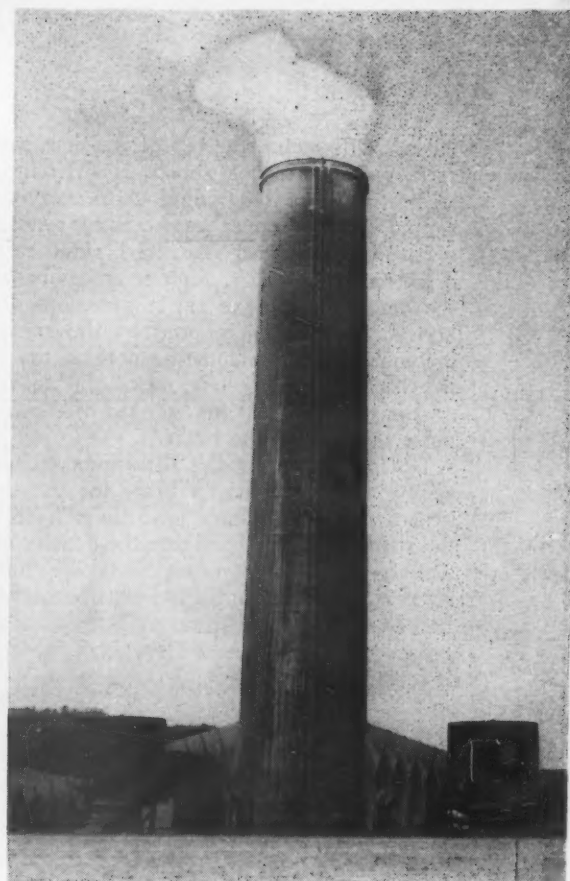
The main lobby is a fitting introduction to this modern structure. Its most impressive feature is the matched walnut veneer, with which it and the adjoining main corridors are lined from the floor to the ceiling. To be certain that uniform grain and texture would be obtained, all this veneer was peeled from the same log. The moving stairway, supplemented by a fixed stairway, connects the lobby with the second floor. Floors of the lobby and adjoining corridors of the first floor, and of the main corridor of the second floor, are of terrazzo, while the corridors of the wings are floored with asphalt tile. The latter material is also used in the offices, except where they are carpeted. The walls, except for certain offices, are of painted plaster, the ceilings are of acoustical tile and the lighting is by fluorescent fixtures, except in a cafeteria on the ground floor, which has incandescent lighting.

Trim throughout the building is fine, close-grained birch or finished walnut. The doors are of solid wood with birch veneer, except in the private offices where walnut veneer is used. The toilet rooms, which are centrally located toward the front of the building, are floored with terrazzo, and lined with vitreous tile. Toilet stalls are hung from the ceiling to keep the floor clear. Executive offices have their own toilet facilities. All windows have venetian blinds.





Air pollution from the stack at the right is many times greater than that from the locomotive above



***Natural dust and stationary stacks receiving recognition as appreciable contributors—Railroad smoke in Canada regulated by Dominion-wide general orders***

## Changing Aspects of Air Pollution

On the broad subject of atmospheric pollution much has been written, both technically and scientifically, and no treatise on this subject in any specific area can be either understood or appreciated unless the characteristics and influence of the turbulence and stability of the air in the area are fully considered.

Pronounced local air movements which occur quite frequently in many industrialized areas, particularly vertical convolutions of masses of air surging upward, will carry in suspension considerable pollution. When these rising air columns are angularly diverted at considerable height, the finely divided dust particles originating, say, in Toronto may quite easily find their final resting place on a housewife's laundry in Oshawa (nearly 30 miles), depending entirely on the vagaries of prevailing air currents which are to a certain extent influenced by local topography and buildings in the area.

Contrary to the generally accepted theories of most housewives, the chief sources of dust in the air are natural ones and, even if man-made dust particles were eliminated, there would still remain a considerable amount of dust. Data recently made public in the year-book of the Carnegie Institution of Washington, D. C., provide some interesting facts concerning the increase

in recent years of worldwide air pollution and the causes thereof.

The distances over which dust may be carried and deposited depend, first, on the abundance at the source and, second, on the ability of rapidly moving air to lift it from its source and, subsequently, upon the vagaries of air currents. In February 1903, for example, nearly 10 million tons of red dust picked up in North Africa due to a peculiar combination of the phenomena referred to were deposited over a wide area of Europe.

My present discussion will be confined to such atmospheric pollution as is known to be caused by railroad operation in general and by steam locomotives in particular.

Technically speaking, smoke as we see it consists of small particles of carbonaceous materials resulting from incomplete combustion of fuels, discharged to the atmosphere, remaining in visible suspension for varying periods at varying levels, depending upon the smoke density per unit of volume of the products of combustion, on the prevailing atmospheric conditions and the topography of the area.

It is acknowledged that some of the criticism directed toward locomotive operation with respect to smoke emission is justified, but, on the other hand, a considerable amount of this criticism may be considered as optical illusion. For instance, each locomotive has a stack

This article is adapted from a paper presented at the semiannual meeting of the American Society of Mechanical Engineers at Toronto, Ont., in June 1951 by O. R. Barefoot, superintendent motive power and car department, Canadian Pacific, Toronto.

22 in. in diameter, the top of which is some 14 ft. above rail level. Whenever smoke is discharged at this low level, it is immediately obvious to everyone within seeing radius and, of course, registers a grievance in the mind of the observer. An industrial plant chimney 10 ft. in diameter and 200 ft. high may discharge twenty times the amount of smoke per minute, but due to its height above eye level, is ignored by the same observer. The locomotive may be burning coal at the rate of one ton per hour; the industrial plant, 20 tons, but the effect on the observer and his opinion of the former is usually more severe than the latter.

Up to the present the Ringelmann chart has been accepted as a comparison basis for the determination of smoke densities. Many objections have been raised to the shade method of judging the density of smoke emanating from locomotive stacks, taking into consideration cloud, wind conditions, and the human element in judging shades. The objections, however accurate, become inconsequential when the entire purpose of the readings is considered; that is, to lessen smoke emission and to improve cooperation in making a cleaner neighborhood.

The chart has proved effective and simple and fulfills the requirements until some more practical method is devised.

### Smoke Limitations

The Board of Transport Commissioners for Canada includes in its general orders and circulars orders dealing with smoke limitations for various cities. The limitations as outlined in the order are similar to those now in effect in cities of the United States. The general order issued for any particular city may vary as between Toronto and Montreal, taking into consideration the physical characteristics of the portion of the railroad operating within the prescribed area.

As a matter of information, the first general order in Canada was issued in 1908 and the limitations of the order issued at that time covering the cities, towns or villages in Ontario is as restrictive as any smoke ordinance issued at that time in cities of the United States.

The outlined method of smoke limitations differs from that of cities in the United States in which the prescribed limitations are set up by the city smoke ordinance or smoke bylaw pertaining to that particular city. In Canada any ordinance or smoke bylaw enacted by a municipality does not cover the operation of steam locomotives. The railways can be summoned and prosecuted by municipal authorities, however, if found guilty of violation of the general order of the Board of Transport Commissioners for Canada.

Locomotives in yard or switching operations present a problem vastly different from that of road operation where one minute the demand for steam is high and the next minute it is nil.

To fire a boiler operating under such conditions of wide load variation demands particular skill and concentration on the part of the fireman. The majority of firemen are able to cope with these rapidly changing conditions and still fire their engines with a minimum amount of smoke emission.

The operation of locomotives in road service, both freight and passenger, is totally different from that of yard locomotives, and the total smoke emission from road locomotives when operating within city limits is considerably less than that of yard locomotives.

As a typical example, consider a road passenger locomotive entering from the west into the congested areas of Toronto and suburbs. The train rolls along at a steady

speed until reaching West Toronto station. It stops for several minutes, starts and again stops at Parkdale, starts again and stops at the Union Station. The locomotive is then uncoupled and proceeds to the roundhouse where the fire is dumped and the locomotive undergoes servicing and inspection. The time lapse between entering the city limits and reaching the roundhouse is possibly one hour or more and during this period the fireman knows and anticipates every move. He can under these known conditions fire the engine accordingly with a minimum of smoke emission.

### Lighting Locomotive Fires

It has been found that smoke emission while lighting up locomotives in roundhouses is most difficult to control.

This is because of the number of locomotives in a concentrated area and also a result of starting new fires in a cool firebox on account of boiler washout. The gases distilled from the fuel burned in a relatively cool firebox do not have an opportunity to reach ignition temperatures, and therefore pass from the firebox through the tubes to the stack in a partially unburned condition.

The problem of smoke control was gone into very thoroughly by both of the major railroads of Canada some years ago. First, illustrated lectures were conducted at all divisional points with all those concerned with the lighting up and operation of locomotives and with particular emphasis on the portion of operation within the scope of the employees involved. For engine crews operating yard engines, illustrated lectures and practical demonstrations were made showing the best possible manner of firing yard engines to minimize smoke emission.

In addition to this, tests were carried out with various types of smoke-consuming devices, both of the carburetor type and direct-connected jets at the firebox door, for air and steam. After a period of time and test, it was found that any of the air and steam injections were effective, if combined with intelligent firing.

On road engines, all hand-fired engines are equipped with steam or air jets on the firebox door, and on stoker-equipped engines the stoker steam jets over the distributing plate were found to be effective.

All of these devices supply additional oxygen to assist in the burning of the coal and provide turbulence over the area of the firebox to consume the volatile gases.

At the roundhouses where the problem is more acute various experiments were carried out with the method of building up the fire bed in the fire-box prior to ignition by oil-fired burners, combined with portable air jets or forks. It is found that with the type of coal used, a level fire bed 4 in. to 5 in. thick, properly ignited, starting at the front of the firebox to the back, combined with the air injection by air forks, gives the best results. However, all the appliances are effective only if combined with intelligent firing methods by either light-up men in roundhouses or firemen on locomotives.

At roundhouses in the larger cities smoke inspectors employed by the railways are on duty to check any emission of smoke that exceeds the limitations, also to instruct the parties concerned. In the larger cities the members of the city smoke ordinance committees are invited to the educational lectures and practical demonstrations so that they can appreciate the difficulties and the efforts made to reduce smoke emission, also to deal with any suggestions that might be advanced in the experimental testing of any device that would contribute to the lessening of smoke emission.

The effect of this cooperation between smoke ordinance officers of the city and railway officers concerned has been



most productive in promoting not only the good will of the railway employees, but also in bringing to the attention of the city officials the amount of work and experimentation that has been conducted by the railroads.

The railroads of Canada have both types of roundhouses in operation; that is, the direct-steaming and the direct-firing. Naturally, it has been found that roundhouses equipped with direct steaming lessen the smoke nuisance to the extent of only igniting the fire bed after the engine has been turned out of the roundhouse. The fire bed under these conditions is more easily ignited due to the drying out of the coal which has been spread

on the grates prior to the steaming up of the engine by direct methods.

As intimated, much has been written, both technically and scientifically, and to even detail the various experiments and methods of operation would entail a much longer discussion. When dieselization is complete, problems of air pollution of another nature will be under discussion. I am of the opinion, however, that if and when the problem does present itself in connection with other types of air pollution originating with railway-operated equipment, it can and will be solved as with the steam locomotive.



Key punch operators in the office of the auditor of disbursements of the Chesapeake & Ohio at Huntington, W. Va.

## How the "Financial Man" Can Help Management

By J. E. KUSIK  
Vice-President, Finance  
Chesapeake & Ohio

**H**ow embarrassing would it be to us if it were shown that our companies, unknown to top management, are selling their products or services below cost? How much redder would our faces be if it could be shown that our companies are reporting profits while in fact they are losing money, again without top management's knowing it? Of course, I am not entirely serious about these seemingly incredible possibilities, but to some extent they may be true of any given company today. They may be

This article is adapted from a talk before the American Management Association, in New York, June 8.

indicative of dangerous trends in other areas, developed basically by a set of twin factors: first, the failure to recognize the financial function as a complex area requiring specialization far beyond cash, journal entries and balance sheets; and, second, the failure to link properly this broad concept of the financial function into top management.

While these twin factors—financial specialization, and its gearing into top management—may seem elementary, evidence of dangerous neglect of the financial function may be present but often is not seen on the surface. On



## "In the Railroad Industry Amortization Is a Loan, Free of Interest . . ."

The following computations assume an effective life of 25 years for \$10 million of equipment which has been certified for amortization at 65 per cent, and further show the income tax effect of amortization and depreciation on three bases:

(a) Assuming 60 per cent effective tax rate for the life-time of the equipment;

(b) Assuming 60 per cent for the first five years and 50 per cent thereafter;

(c) Assuming that the effective rate will be 60 per cent for the first five years and 65 per cent for the remainder of the period.

Tax rate —		60 per cent		60 per cent		60 per cent	
First 5 years		60 per cent		50 per cent		65 per cent	
Next 20 years		60 per cent		50 per cent		65 per cent	
		(Thousands of Dollars)					
Tax Reduction	Under	Tax Reduction	Under	Tax Reduction	Under	Tax Reduction	Under
Amorti- Depre-	Diff.	Amorti- Depre-	Diff.	Amorti- Depre-	Diff.	Amorti- Depre-	Diff.
zation ciation		zation ciation		zation ciation		zation ciation	
Tax reduction —							
First 5 years							
\$4,320	\$1,200	\$4,320	\$1,200	\$4,320	\$1,200		
Next 20 years							
1,680	4,800	1,400	4,000	1,820	5,200		
Total							
\$6,000	\$6,000	\$5,720	\$5,200	\$6,140	\$6,400	—\$260	

If the tax rate remained constant throughout the period, there would be no difference in the total amount of taxes, whether the facilities were amortized or depreciated. If the rate should drop to 50 per cent after five years, taxes would be \$520 thousand less under amortization than under depreciation. In the event that the rate should go up to 65 per cent after five years, taxes would be \$260 thousand more under amortization.

This represents, of course, an oversimplification of realities. A number of additional factors such as occasional changes in depreciation rates allowed for tax purposes, miscalculations in forecasting the useful life of equipment, plus other occurrences during the equipment's 25-year life which cannot be foreseen at this time, would very likely produce larger variables than those indicated in the above tabulation. Hence, for all practical purposes, we should say that there is no difference between the various methods except in the obvious gain of an interest-free loan.

[The material in this box was prepared especially for *Railway Age* by Mr. Kusik after the meeting at which his paper was presented.—EDITOR]

the contrary, it is generally quite obscure. It may exist in the handling of such day-to-day problems as the changing of prices of products of a manufacturing enterprise, or of the freight rates of a railroad. It may be found in a question, such as we had recently, involving a locomotive which had run off the track and fallen into a river—should we leave it there, pull it out and repair it, or pull it out and scrap it? Incidentally, mainly for tax reasons, we decided to pull it out and scrap it. Dangerous neglect of the financial function may exist where the top officers, including the financial man, do not spend enough time together in frank and free discussions of financial policy and its relationship with other major policies. It may exist in the lack of trained financial men, strategically placed within the company, ready to aid decisions by giving financial counsel and services.

Let's examine five major problems which illustrate the need for financial specialization and the close linking of this function to all top management decisions. They are: (1) amortization of emergency facilities; (2) federal income taxes; (3) cost of plant ownership and maintenance; (4) the financial function as a custodian of stockholders' interests; and (5) measurement of risk taking.

To stimulate a great expansion of productive facilities,

for reasons of military preparedness, the government has re-established the system of grants of amortization, intended to safeguard business against severe loss in value of new facilities at the end of the emergency. This provides for the writing off (for tax purposes) of some proportion of the cost of plant facilities over a five-year period.

I have talked to some important men who apparently think that this system provides a permanent tax saving, a kind of windfall, with no strings attached. Some economists have taken up the hue and cry, but, like the girl who believes that diamonds are her best friends, they are due for a rude awakening. In the first place, if amortization represents actual increased wear of production facilities or if the expanded facilities will have no peacetime use, then it doesn't provide a tax saving at all. It should not only be deducted for tax purposes but also should be included in cost and price. In fact, in no other way could the investment be recovered during the five-year period.

On the other hand, if the facilities have substantial peacetime use, then amortization merely represents a device to obtain an interest-free loan through tax deferment. It should be included in neither cost nor selling prices because such action might well lead to pricing the product out of the market. In addition, the temptation of an interest-free loan, obtained through the amortization device, might lead top management into a dangerous over-expansion. In other words, each company should undertake only that portion (of the expansion needed for defense) which is proper for it. Over-expansion (through forced feeding) may cause a collapse when the current high level of business activity ends. Plainly, therefore, a legislative device intended to encourage business expansion can become a bear trap for the unwary. Obviously it is of great importance, then, to know how in our businesses amortization is linked to the decision of top management.

### Federal Income Taxes

The second of the five questions listed above is federal income taxes. Does top management know at what level of earnings the company becomes subject to excess profits taxes? What effect should this have upon its programs? While I would caution against the development of the cheap dollar philosophy, it is equally urgent that we take full advantage of the opportunities offered by this legislation. Without embarking on a free-spending philosophy, the top management, if it foresees that it will be subject to excess profits taxes, quite properly can authorize expenditures for certain creative purposes. Indeed the management would be negligent if it did not strengthen the business earning power at bargain prices.

At the Chesapeake & Ohio we have tackled this problem in two ways: first, by maximum utilization of all opportunities for creative expenditures; second, by special effort to enlarge our excess profits exemption through careful appraisal of the meaning and effect of the new tax legislation. We are doing this with our own tax staff, aided by outside specialists. The important thing about the group of outside specialists is that it includes men from other functions who bring to this work more intimate understanding of the property and operating problems than financial men normally would possess. As a result, we hope that our exemption may turn out to be about \$1 per share of common stock larger than originally expected. As an additional result, although our revenues are excellent, we will pay relatively little, if anything, in excess profits taxes.

So much has been said on this subject recently, in



Tabulating equipment aids in getting quickly the figures that the financial man and top management need to make intelligent decisions

speeches and in print, that I will not dwell on this example unduly. Admittedly the subject is complex, and this is no reason for top management to delegate the problem to the point of abdication. Needed are what might be termed "middle men" who will keep top management posted through simple explanations of any new tax developments and will keep a sharp eye on management decisions requiring tax consideration.

In most cases, although the tax effect alone is not necessarily the governing factor, it is easy to see how it could become what might be termed the "balance of power" and modify the final decision. Quite obviously, each important situation needs careful study. However, the tax point of view should not be allowed to carry too much weight or else the decision may become "tax wise and company foolish." In your company, how are federal income taxes linked to top management decisions?

#### **Plant Ownership and Maintenance**

While taxes are becoming an increasingly important part of the cost of doing business, a large proportion of business costs arises from plant ownership and maintenance and, for the most part, the determination of the timing of these costs is subject to managerial decision. Likewise, the determination of how much of these costs is to be allocated to the unit cost of products and services is, at least theoretically, governed by managerial decisions. Frequently, in this sphere, accounting clerks have assumed an all-powerful position, after management defaulted from these obligations.

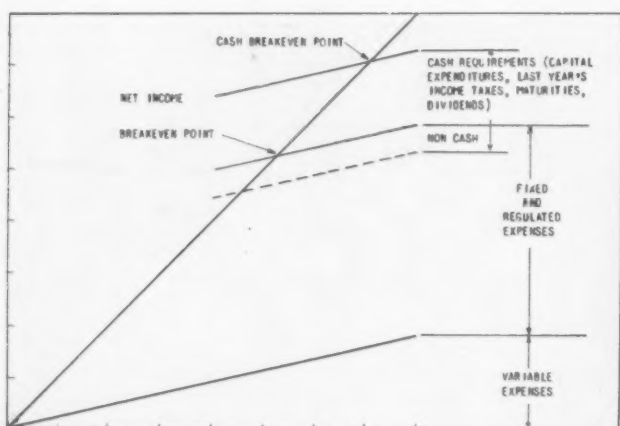
Obviously, the very nature of these costs makes possible great miscalculations in cost measurements. For instance, one of the most important elements of the cost of plant ownership is depreciation. Now, in measuring current profit margins, no one would dream of calculating

the cost of material and labor at the rates that prevailed in prior years. Yet, standard accounting practice does just that in calculating the cost of the piece of a building, the piece of a machine, or the piece of a freight car which went into the making of the final product. In other words, depreciation is based on original cost. As a consequence, if the net income reported to stockholders of a company were recalculated today on the basis of current cost of facilities instead of original cost, we might find the dividend payments have exceeded real income!

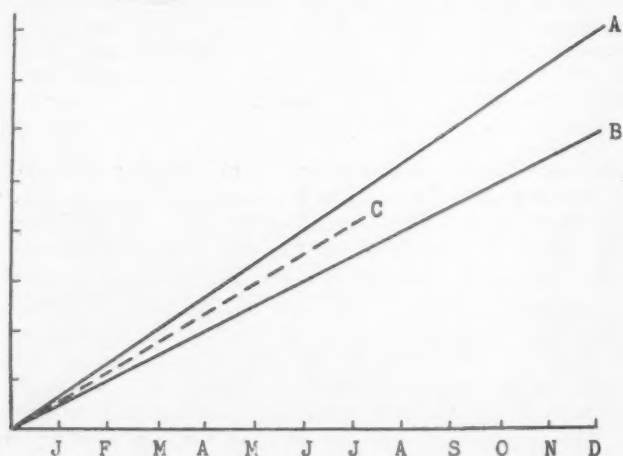
The question of how to account for depreciation is constantly argued in accounting circles, with the arguments becoming more violent during or immediately after each major inflationary or deflationary change in the nation's price level. As you might expect, therefore, this is a hot subject in the rarified atmosphere of accountancy. This argument rages without causing the hearts of most top management men to skip a beat!

While I am not suggesting that top management should become involved in this argument, that group cannot keep itself aloof. Management must be informed on two facts: first, of the extent to which unit selling prices include provision for the replacement of facilities as they wear out; second, the extent to which reported net income is overstated because costs do not include adequate provision for depreciation. Whether records are kept on the basis of originally invested dollars or of current dollars, a share of earnings must be retained sufficient to meet replacement costs, unless top management is willing and able to issue new stock or to borrow for replacement purposes. Replacements normally do not increase the earning power of the property and, hence, borrowing for such purposes will, in the end, lead to financial embarrassment. Obviously, management will not have sufficient earnings which could be retained for replacement purposes unless the problem is recognized in cost calcula-





Above—Application of break-even chart to show the difference between the net income and the cash breakeven point. "If breakeven points are as shown above, what can be done to reduce them, in order to have more net income, have more cash on hand and have a greater margin of safety against a severe drop in business volume?" Below—"Future outlook is a range of probabilities rather than a pin point. Looking ahead for a year, or years, it is easier to forecast a range than a specific point. It is important to know where any predicted specific point falls, within the range of probabilities." Line "C" shows the plotting of actual revenues within the forecast of the range of probabilities



tions and selling prices, regardless of what the records show.

Up to now I have been considering only the effect of inflationary changes in the cost of plant. The measurement of net income is, of course, also greatly influenced by managerial estimates of useful life and obsolescence, as well as closely related managerial policies with respect to timing of improvements, replacements and maintenance. Although deferment of these items is more frequently the case, occasionally the pendulum swings the other way and management spends too much on improvements, replacements and maintenance.

#### Stockholders' Interest

In any event, it is evident that in this area top management needs great alertness. In too many companies managers and marketing men miss important profit opportunities because of their inability, arising out of lack of proper help from the financial men, to grasp the ranges of flexibility of these important elements of cost.

Now, of course, in accounting we all use such magic words as "coordination" and "controls" which, like "Hadacol," are supposed to perform miracles. In view of this, it is somewhat amazing to find how frequently long-range marketing and facilities planning is undertaken without proper consideration of financial policy. In other words, the answers to such questions as, how much should be paid in dividends, how much should be borrowed, what would be the end effect upon financial condition, tend to be left to chance. Too often these decisions are determined by "how much is left over" rather than by planned objectives into which marketing and facilities planning have been fitted.

It is in this area that the financial function must assume leadership, making recommendations as to reasonable financial objectives, as well as in making financial appraisals of the effects of major marketing and production objectives. Without this financial building block, the company may be mushrooming toward mere bigness, indefinitely depriving the stockholders of their rightful return on investment.

Closely akin to the determination of these financial objectives is the question of proper rationing of available funds among various proposed investments. This problem is a practical one, since it is an unusual company whose progressive production and marketing officers cannot and do not present more candidates for capital expenditures than can reasonably pass the acid test of profitability. The development and use of the proper procedure for weeding out and assigning priorities to those proposals, based on protecting or increasing existing profits, is an essential financial control. When properly used, it acts as a powerful brake against mushroom growth of sterile capital investments discouraging the taking of necessary calculated risks. In fact, when properly used, the ranking procedure may become a strong creative lever for the development of increased earning power of the company.

#### Measuring Risk Taking

The determination of the financial position of any company calls, most importantly, for the appraisal of what will be the future outcome of all of the outstanding risks which the top management has assumed. The management must obtain such appraisals reliably, promptly and frequently. These measurements apply to the business establishment as a whole, as well as to individual risk units requiring attention or decision. These risk units may be individual departments requiring special attention, important projects, individual major business transactions, some especially critical period of business operations or some other subdivision of the total risk of operations. In weighing the need for—and type of—action called for by these matters, the business executive is faced with such qualitative problems as ethics, legality, taste, policies, etc., which must be dealt with on the basis of business judgment or hunches. He is—all too often—faced with the necessity of substituting his hunches for soundly based judgments, in the vast area of managerial economics which is measurable in definite numbers or at least in terms of orders of magnitude. This occurs when adequate provision has not been made to supply him with these numbers.

It is in this field of economics, dealing with business judgments and greater expansion of the availability of proper numbers bearing on economic decisions, that the financial man makes his major contribution to the success of any enterprise. However, in order to do this job well the financial man must maintain his "feel" of operations through close personal contacts with the levels at



which the work is being done. This means not only financial areas, but all areas. Intimate, frequent immersions in the environment of the other management functions are especially important to financial men because they are prone to become separated from the realities of life by a wall of business documents, which can block from view the very realities they are intended to depict.

### The Province of Accounting

After this discussion of the processes of management, we are ready for a question: Where does accounting come in, in this discussion of measurements of risk taking?

Many years ago, when I was much younger and filled with deep reverence for the wonders which accounting could perform, a business with which I had become connected acquired a new chief executive. This competent man had one thing in common with me. He, too, was young and somewhat short on practical business experience. One of his first acts was to call me in, put his arm around me and say, "John, here is the balance sheet which your department prepares. Now, I want to run this business right. Tell me what it means." This question from a man whose very inexperience led him to expect so much from one who was able to give so little, because at the time the company had very little beyond the usual financial statements, provided impetus for a determination of just what accounting is all about. What guidance can accounting give top management?

It seems that accounting, important as it is, is only one tool in the kit of a rounded financial man. The kit should include certain new accounting devices, molded to the management's requirements and, in addition, it should include the use of scientific methods such as the theories of sampling and probabilities. Forecasting and break-even charting techniques, if included in the kit, would give, in combination with forward planning in marketing, production facilities and capital requirements, real substance to budgetary control procedures, and other forward planning activities.

Incidentally, in connection with forward planning beyond one year's time, much has been made of the fact that in planning five years ahead, for example, there are too many elements which are impossible to predict to make the effort worth while. This attitude can too easily be used as an excuse for neglecting forward financial planning involving the many fixed elements which can be predicted within reason. Planning is of inestimable value in avoiding the unpleasant "surprises" which may otherwise crop up in meeting maturing obligations or in replacing costly facilities which wear out.

To return to the financial man's tool kit, however, as a former union man ship carpenter I recognize that the mere enlargement of his tool kit doesn't make a skilled mechanic out of a man with ten thumbs. As illustrated by my story of the chief executive who wanted to find his major financial controls in the balance sheet, a financial man's tools have no intrinsic value. They have only scrap value unless they can help top management in its decisions. The point of view which any modern financial man must take as he puts his tools to work is to liken his top executive to the captain of a ship. The captain is less concerned with the history of his voyage than he is with today's position and how to reach his destination—safely and on time. The officer who falls short simply places an added burden on his captain and the other officers.

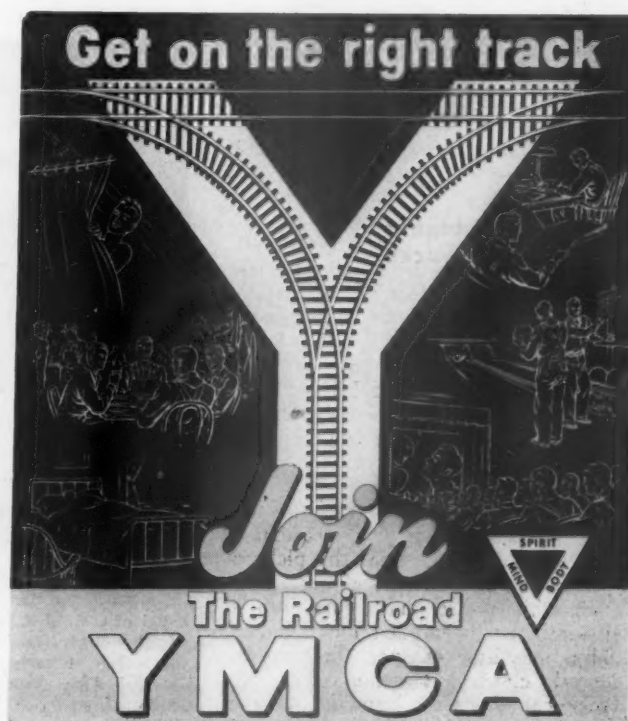
In conclusion on this matter of financial risk measurements, perhaps I can best bring out what I have in mind by relating it to your own experience. In your business:

- (1) Is the financial and accounting emphasis on the present and on the future—rather than on the past;
- (2) Is it on obtaining close approximations of results promptly rather than on slow, cumbersome exactitudes;
- (3) Is it on statistical methods to speed up results by short cuts or must you always go the long way around;
- (4) Is it on controls in terms of physical standards, with reliable conversion factors into dollars, or must all your financial data come "from the books";
- (5) Is it on presenting data to top management in clear, understandable English or is it so loaded with accounting terminology that you need translators;
- (6) Is it on prevention rather than remedy;
- (7) Is it on forecasting ranges of probabilities rather than on "pin points";
- (8) Is it on computing cost data aimed at a specific problem or are you supplied with "all-purpose" costs;
- (9) How often do you find it necessary to ask for data that should have been available in advance;
- (10) Do you find it necessary to rework data which is technically correct but managerially unusable?

### Where Does This Lead?

The question may well be raised—"Where does all this lead to—is this hypothetical financial man in fact becoming too big for his britches?" The answer is that the danger is real whenever one man is aggressive while those in other functions are weak. However, any competent executive will be the first to recognize the dangers of falling into this trap. The financial function, itself, must continuously recognize the leadership position which rightfully belongs to the other functions, especially marketing and production. Under no circumstances should the financial function succumb to any temptation to usurp such leadership. On the other hand, I think that we can agree on not trying to correct weakness in marketing and production by undermining other stronger functions.

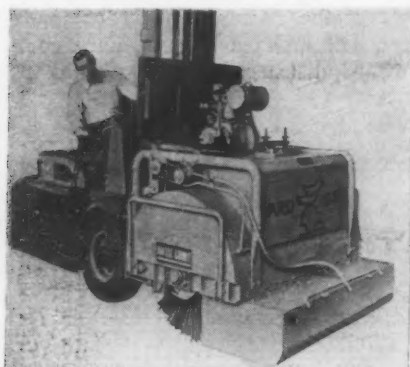
The self-protection of top management calls for prompt re-examination of the current impact of many serious financial issues. The managements of some companies are headed toward disaster without knowing it.



## New and Improved Products of the Manufacturers



The Tractor Ox, an electric industrial tractor with 20,000-lb. rolling capacity and a drawbar pull of 700 lb., has been introduced by Barrett-Cravens Company, Chicago 9, Ill. The Tractor Ox is an addition to the manufacturer's line of Power Ox equipment, but all previous models have been "walkies"



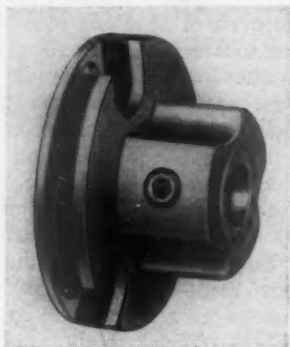
### Sweeper Attachment For Fork-Lift Trucks

For high-speed cleaning of extensive floor or platform areas, a power-sweeper attachment, called the Yard Bird, designed to fit any fork-lift truck with a capacity of 1,000 lb. or more, has been developed by Little Giant Products, Inc., Peoria, Ill. With this machine, according to the company, areas as large as 80,000 sq. ft. can be cleaned in an hour if the lift truck is operated at a speed of 5 m.p.h.

The sweeping unit is of the pick-up type, incorporating a revolving brush which whisks dirt and refuse into a full-width, easily-emptied dust pan. A 6.8-hp. gasoline engine, through an integral clutch reduction unit and sprockets, rotates the brush at a speed of 164 r.p.m., and a self-contained

sprinkler system provides control of dust.

The Yard Bird is easily attached to the forks of the lift truck by clamping bars and four eyebolts with wing nuts. This can be done, it is reported, in 2½ to 3 min., and without using tools. The sweeper can also be used for snow-removal operations. For this type of work the unit is attached to the lift truck at an angle to permit whirling snow to one side.



### Fan-Noise Damper

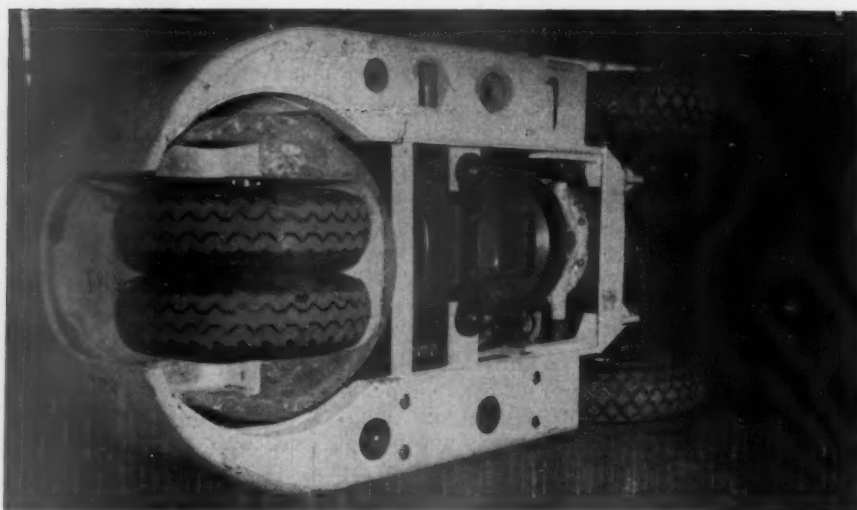
A bonded neoprene hub has been produced by the Lord Manufacturing Company, Erie, Pa., for preventing motor noise from being transmitted to the fan driven by the motor. Investigation by Lord engineers showed

that although the motor mounts were doing a satisfactory job of isolating motor noise from mount or cabinet, they did not prevent noise from being carried through the motor shaft into the fan blades and from there into the air stream.

The hub which has been developed to prevent such transmission of noise consists of a stamped aluminum washer and a zinc-casting between which is bonded neoprene of proper stiffness to insure fan stability and maximum vibration isolation. Three rivets through the aluminum washer attach the hub to the fan, and a single socket-head set-screw in the die-casting attaches it to the motor shaft. There is no metallic path for vibration to follow, and the neoprene forms an effective "sound dam" between the shaft and fan.

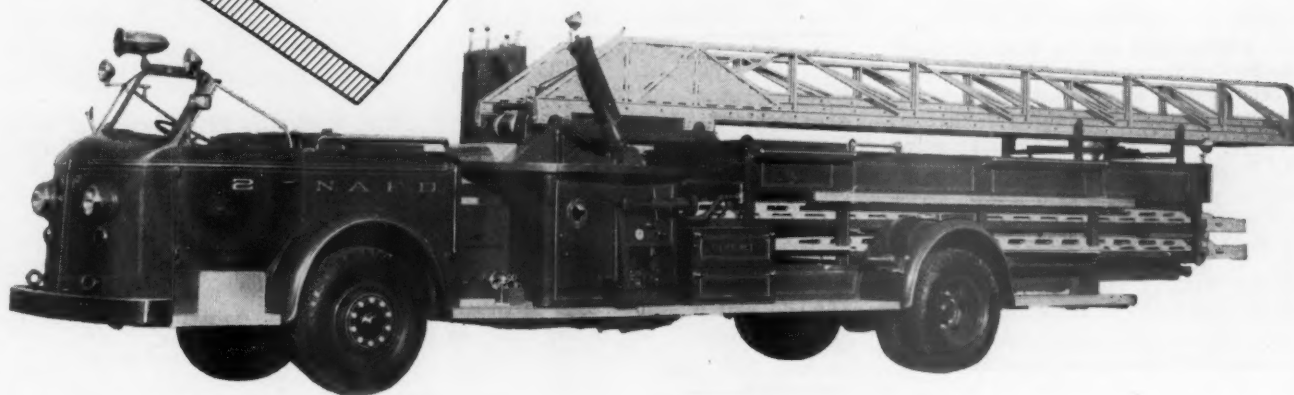
### Clark Announces Improved "Carloader"

Greater safety, easier operation and improved maneuverability are claimed by the Industrial Truck Division, Clark Equipment Company, Battle Creek, Mich., for its 4,000- and 5,000-lb. capacity electric carloader fork-lift trucks. "Fingertip" control lever on the steering column, automatic acceleration, "no-kick-back" steering axle and a deadman brake are said by the manufacturer to have brought about the improvement. The fingertip control per-



All 4,000 lb. capacity fork trucks being produced by the Hyster Company, Portland 8, Ore., now are equipped with dual wheels, instead of a single wheel, on the steering trunnion. (Present Model 40's can be converted to this type of steering if desired.) Reduction of the gear ratio in the steering me-

chanism, the maker states, permits the operator to turn the wheels 120 deg. with only 7 turns of the wheel, instead of the former 10.3 turns required. Hyster has reduced the tire size on this model to 6.00 by 9, to provide interchange with tires on the Hyster 2,000-lb. capacity model



FIRE fighting equipment must be in readiness for emergency service at all times.

Likewise steam locomotives should be maintained to meet emergency service ...they will certainly be called on

Anticipate such demands by providing the necessary replacement stock of vital parts that will be needed to recondition and to maintain them.

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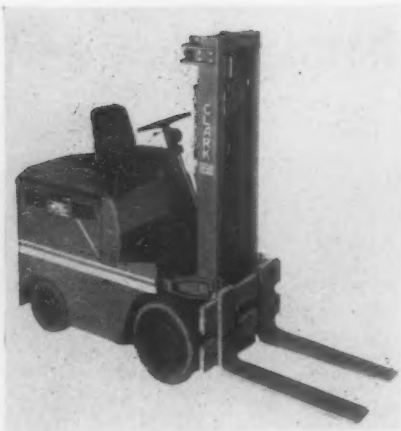
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mits selection of the direction of travel and engagement of the first point of power simultaneously. The automatic acceleration is said to eliminate jerky movement by making shifts from one point of power to another automatically, in accordance with torque requirements.

Outside turning radius of the 4,000-lb. capacity "Carloader" is 74 in. while that of the 5,000-lb. model is 78 in. Service weights, less batteries, are 5,990 lb. and 6,368 lb. respectively.

deg. C. ambient—and the corisil core (a grain-oriented, cold-rolled silicon steel) provides comparable losses at higher flux densities. The net result is less copper and steel per kva. of output.

The redesign was undertaken at this time in an effort to furnish industry with the maximum number of transformers that can be produced from the presently available supply of critical materials.

Some ratings of the new line are available immediately, and others are being added as quickly as manufacturing facilities can be converted. In all, the line ultimately will consist of about 50 models in ratings of 3 kva. and upwards.

### Kalamazoo Adds Tractor to Material Handling Line

A tractor powered by a 2-cylinder Wisconsin engine, which develops 13 b.hp. at 2,600 r.p.m. has just been added to its line of material handling equipment by the Kalamazoo Manufacturing Company, Kalamazoo, Mich. The engine drives the tractor at speeds up to 10 m.p.h. The Model 3600, as



it is labeled, is 79 in. long and 42 in. wide, and weighs 2,400 lb. Turning radius is 57 in. when a left turn is made and 62 in. when the turn is to the right. Capacity of the tractor is said to be 20 tons if the load is on roller-bearing trailers, while 11 sq. ft. of loading space is available on the tractor itself, on a platform just to the rear of the driver's seat.



Two transformers having the same rating, built respectively with Class A and Class B insulation

### Transformers with Class B Insulation

A line of general-purpose, dry-type transformers featuring Class B insulation has been announced by General Electric's Specialty Transformer and Ballast Divisions.

For single-phase, 60-cycle operation, the new design provides smaller transformers at an average weight reduction of 30 per cent throughout the line. Some models weigh less than half as much as the units they replace.

These size and weight advantages are obtained through the use of improved core steels and increased amounts of inorganic insulating materials. The insulation withstands higher temperatures in the copper windings —90 deg. C. rise over a 40



After the soil is cleared away from the pole, the preservative grease is applied to the pole surface from a point 12 inches below the ground line to 6

### Wood Preservative For Standing Poles

The Chapman Chemical Company, Memphis, in cooperation with the Dow Chemical Company, Midland, Mich., has developed a new wood preservative for treating the ground-line portions of standing poles or posts. Named Pol-Nu, the product is a preservative grease containing 5 per cent pentachlorophenol. It weighs about 8 lb. per gal., and has a consistency about the same as cup grease.

The first step in applying the preservative is to remove the soil to a depth of about 14 inches from around



inches above the line. The grease is then wrapped as shown to assure that the preservative moves into the wood and not into the back-filled soil

the pole to be treated. Next, a coating of the preservative about 1/4 inch thick is applied to the pole surface from a point 12 inches below the ground line to 6 inches above. This is done with pressure spray equipment similar to that used to apply lubricating grease. Finally, a wrapping is placed over the preservative and fastened to the pole, to keep the preservative from moving into the soil instead of into the wood. Treating a 16-inch pole in this manner requires about a gallon of the preservative. The new product is also recommended by the company for treating the tops of poles and the tops of piles after they have been cut.

## GENERAL NEWS

### Car Ownership Decreased

(Continued from page 35)

I "steam railways" which own no steam locomotives and "only 11" which own no diesels. Two of the latter have diesels on order, he also said.

In his discussion of freight car performance, the C.S.D. chairman announced the dropping from his monthly reports of the "average-turn-around-time" figure as a measure of freight car performance. This action was taken because the figure had been subjected to criticism which Mr. Gass called "justified." In lieu of it he is now using "net ton miles per serviceable car per day," which "is generally considered to be the best available indicator of all-around car utilization."

The preliminary figure for June was 1035 net ton-miles. It compared with a May figure of 1038 net ton-miles, and 997 net ton-miles in June, 1950. As to these and other like data, Mr. Gass made this further comment:

#### Will Fall Short

"An important fact to be borne in mind in connection with figures of this kind is that the existence of surplus cars will reduce the indicated rate of car utilization, other things being equal, and, conversely high records of utilization are apt to be recorded during periods of car shortage. In other words, in periods when the supply of serviceable freight cars is fully adequate to meet all requirements, any index of car utilization is likely to fall short of records established during periods when the demand for cars exceeded the supply."

On the basis of reports from 670 communities in various shipper-board districts, cars detained beyond the free time of 48 hours averaged 14.6 per cent

### CAR SURPLUSES, SHORTAGES

Average daily freight car surpluses and shortages for the week ended August 18 were announced by the Association of American Railroads on August 23 as follows:

	Surplus	Shortage
Plain Box	287	7,515
Auto Box	19	68
<b>Total Box</b>	<b>306</b>	<b>7,583</b>
Gondola	—	4,995
Hopper	—	4,393
Covered Hopper	—	76
Stock	992	75
Flat	5	1,107
Refrigerator	1,884	—
Other	33	126
<b>Total</b>	<b>3,220</b>	<b>18,355</b>



**A NOVEL PROGRAM** designed to stimulate discussion among all its 105,000 employees on the benefits of the American way of life—and the danger of losing those benefits—is being sponsored this summer by the Westinghouse Electric Corporation. The program consists of two one-hour sessions—an company time—in groups of not more than 20 persons, for all employees, who are

then, in turn, given a chance to present the program to outside groups. "Industry has been criticized," says Tom Turner, Westinghouse vice-president in charge of plant labor relations, "for failing to explain the free enterprise system to the public in understandable, believable form. We feel the best way to do that is to stimulate discussion about our American way of life"

of those placed in July. This compared with 13.85 in June, and 22.81 per cent in July, 1950. For the first seven months of this year, the average detention was 14.73 per cent, compared with 21.34 per cent for the corresponding period of last year.

Reporting on equipment conditions by types of cars, Mr. Gass said there has been a "continued tightening in the overall box car situation." He noted that the railroads are approaching the season of heaviest demand; and "shortages can be expected to increase still further for the next two months, after which they should taper off."

Meanwhile, the grain situation as of the middle of this month was better than a year ago, when 916 elevators were blocked and 4,998,900 bushels of grain were on the ground. On August 15, this year, 678 elevators were blocked and 66,000 bushels of grain were on the ground.

#### Stock Car Situation

As to stock cars, Mr. Gass reported that the demand for single decks exceeded the supply, but there has been an adequate supply of double decks. Demands for hopper cars have been "exceptionally heavy" and "small shortages" have been reported. The "already tight supply" of gondola cars was "aggravated" by floods in the Central West, where many gons were "immobilized" for several weeks.

The supply of plain flats has continued "tight to short in most sections," as Mr. Gass put it. Demands for special-type flats continue "very strong," while requirements for covered hoppers "are about equal to supply with a few shortages being reported." Demands for refrigerator cars, heavier than in 1950, are generally being met.

## SUPPLY TRADE



Robert S. Bubb, who has joined the American Brake Shoe Company as marketing engineer, to study the distribution methods of the company's 10 operating divisions. Mr. Bubb was formerly a management engineer with Robert Heller & Associates, and worked on railroad, government and industrial assignments

The Ediphone division of Thomas A. Edison, Inc., West Orange, N. J., has established direct factory branches in Chicago, St. Louis, Peoria, South Bend, Rockford and Davenport. These offices will be devoted to sale and service of Edison Voice Writing equipment and Edison Televoice. Edison's new midwest headquarters for dictation systems will be 304 West Randolph street, Chicago 6.



**Linwood L. Adams** has been appointed manager, transportation planning, and **T. Lester Fossick, Jr.**, manager, traffic planning, of the **United States Steel Company**. Both have been assistants to the vice-president—traffic.

Mr. Adams formerly was associated with the Chesapeake & Ohio for 24



**Linwood L. Adams**

years. During World War II he was chief of the Transportation Branch of the War Production Board in Washington, D. C., and later assistant director of the Railway Transport Department in the Office of Defense Transportation. He joined U. S. Steel in 1945.

Mr. Fossick joined U. S. Steel in



**T. Lester Fossick, Jr.**

1944. He was chief of the Graphic Section of the Navy Department in 1940 and during World War II worked for three years in the steel division of the War Production Board as assistant chief of the Raw Materials Branch.

**P. A. McGee** has opened an office at 30 Broad street, New York 4, as a consulting transportation engineer, specializing in economic, operating and maintenance problems related to railroad motive power. Mr. McGee, who until recently was assistant manager, Eastern region, of the Electro-

Motive Division of General Motors Corporation at New York, was born in Ardee County South, Ireland, on March 12, 1892. He attended Clongoes Wood College, Ireland, and the London School of Science and Technology and began his career in 1909 as a student engineer, street railways, London County Council. He took the test course of the General Electric Company in America from 1910 to 1911, and then became electrification inspector on the New York, New Haven & Hartford. From 1914 to 1919 he was resident engineer on suburban electrification at Melbourne, Australia, for Merz & McLellan, consulting engineers. He was appointed general engineer on railway electrification for the Westinghouse Electric & Manufacturing Company (now the Westinghouse Electric Corporation) in 1920; assistant electrical engineer for the Reading in 1931, and in 1937 assistant manager, Eastern region, Electro-Motive Division.

**John T. McCarley** has been appointed assistant general manager of the **Yale & Towne Manufacturing Co.**, Philadelphia division, and **Kenneth H. Bergstrom** succeeds Mr.



**John T. McCarley**

McCarley as manager of production. Mr. McCarley joined Yale & Towne in 1936 in the automotive division, then located at Detroit, and a year later was transferred to the Philadelphia division.

**J. P. Orchard**, executive vice-president of the Fort Wayne (Ind.) division of **Bowser, Inc.**, has been elected president of the division, to succeed **E. C. Marsh**, who has resigned. Mr. Orchard joined Bowser at Fort Wayne in 1940. He worked successively as controller, treasurer and executive vice-president of the Fort Wayne division.

The **Gustin-Bacon Manufacturing Company** has announced its return to normal production, following the recent Kansas flood. The first floors of all seven of the company's plants in the Kansas City area were inundat-

ed, but finished goods inventories were stored on higher floors and shipments were resumed as soon as the water receded. All plants are now in full production and shipments are being made daily.

**William N. Hoelzel**, assistant manager railroad sales of the Gary Screw and Bolt division of the **Pittsburgh Screw & Bolt Corp.**, has been advanced to manager railroad sales. He is succeeded by **John C. Jewett**.

## OBITUARY

**David J. Jones**, executive sales representative of the Vapor Heating Corporation, Chicago, died in that city on August 14, after a long illness.

## EQUIPMENT AND SUPPLIES

### Backlog of Locomotives On Order Totals 1,602

Class I railroads had 1,602 new locomotives on order on August 1, of which 1,588 were diesel-electric, 12 steam and two electric, the Association of American Railroads announced last week. On August 1 last year, Class I roads had 1,132 locomotives on order.

New locomotives installed in the first seven months of 1951 totaled 1,483, including 1,471 diesel-electrics, 10 steam and two electric. In the same period of 1950 installations totaled 1,289, of which 1,283 were diesel-electric and six steam.

In July this year, a total of 174 new locomotives were installed. All of these were diesel-electric except for two steam locomotives.

## FREIGHT CARS

The **Bessemer & Lake Erie** is inquiring for 500 70-ton ore cars.

The **Gulf, Mobile & Ohio** has ordered 250 new-type 95-ton hopper cars from the Pullman-Standard Car Manufacturing Company, at an estimated cost of \$2,400,000. Delivery is scheduled for late 1952 or early 1953. These cars will be used in transporting iron ore from Mobile, Ala., to Birmingham, for the Tennessee Coal, Iron & Railroad Co.

The **Norfolk & Western** is inquiring for 1,000 70-ton gondola cars.

The **Virginian** is inquiring for 1,000 50-ton hopper cars.



## THIS "ROUND-TABLE" DISCUSSION BENEFITS EVERYBODY!



Experience proves that modern railroad Diesel operating problems can be solved only through the cooperation of operator, builder and oil supplier. Socony-Vacuum, the pioneer in Diesel lubrication, is contributing more to this cooperative effort today than ever before.

Backed by a \$10,000,000 annual petroleum research program, we are making exhaustive laboratory and field evaluations—holding "round-table" discussions with leading operators and builders to exchange our findings. As a result, our Diesel lubricating oils are constantly being improved—are, in turn, improving Diesel performance on many major roads right now!

Why not take advantage of our experience and products to help solve *your* Diesel troubles?

SOCONY-VACUUM OIL CO., RAILROAD DIV., 26 Broadway, New York 4, New York



# SOCONY-VACUUM

*Correct Lubrication*

WORLD'S GREATEST LUBRICATION KNOWLEDGE  
AND ENGINEERING SERVICE

The **Western Pacific** is inquiring for 300 70-ton gondola cars and 100 50-ton selective dump hopper cars. Authorization to purchase 400 gondola cars and 100 hopper cars was reported in *Railway Age*, July 9, page 116.

## SIGNALING

The **Atlantic Coast Line** has ordered from the Union Switch & Signal Division of Westinghouse Air Brake Company material to install a remotely-controlled interlocking a short distance south of Florence, S. C., with the control point at "RA" Tower, Florence. Controls will be added to the existing style C control machine at RA tower. The order includes styles H-2 high searchlight and N-2 dwarf color-light signals, A-21 dual-control electro-pneumatic switch machines, SL-26 electric switch locks, relays, rectifiers, transformers, switch circuit controllers, and housings. Field installation will be handled by railroad forces.

The Electro-Motive Division of General Motors Corporation has ordered from the Union Switch & Signal Division of Westinghouse Air Brake Company 24 sets of three-indication continuous cab signaling equipment to be installed on diesel-electric locomotives being built for the **Chicago, Milwaukee, St. Paul & Pacific**.

## MARINE

The **Chesapeake & Ohio** will receive new bids on September 14 for a 370-ft. car float, for use between Norfolk, Va., and Newport News. As reported in *Railway Age*, July 16, page 67, bids on this float were originally called for August 9.

## ABANDONMENTS

**Milwaukee Rapid Transit & Speedrail.**—With the failure of all efforts to raise sufficient capital to restore operations, the Wisconsin Public Service Commission has ordered abandonment of this entire system, which extended from downtown Milwaukee to West Junction, and thence to Hales Corners, 13 miles, and Waukesha, 18 miles. Operations had been suspended since June 30, as a result of financial losses growing out of a collision between two special trains last year, but the commission had prohibited sale of rolling stock and other assets pending the possibility of restoring operations through added capital. Recent plans for a proposed rapid transfer system for Milwaukee have centered around use of the M.R.T.&S. right of way as a main route, hence the commission's reluctance to order its abandonment of Speedrail's operations. Because the right of way is also used for power transmission lines, it may still remain sufficiently intact for eventual rapid transit use.

## CAR SERVICE

I.C.C. Service Order No. 872, which maintained the permit system controlling movements of export grain to the ports, has been supplanted by Revised Service Order No. 872. The new order extends the controls to Washington and Oregon ports, appointing P. E. Grider, 211 U. S. Court House, Portland, Ore., as the agent for such ports.

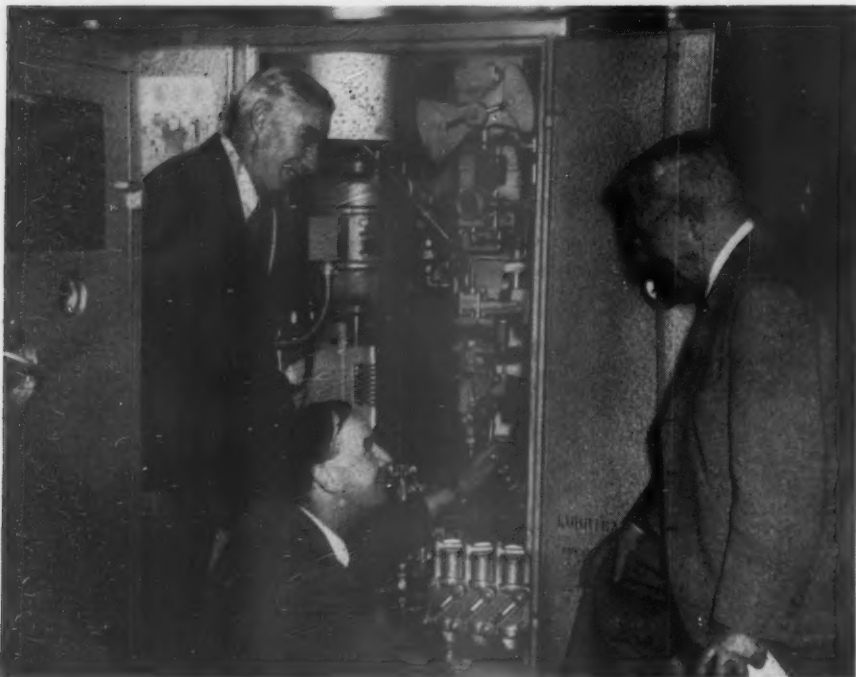
I.C.C. Service Order No. 865, which imposes super-demurrage charges running up to \$20 per day, has been modified by Amendment No. 13, which extends for another month (until October 1) the exemption provision applicable to refrigerator cars.

## CONSTRUCTION

**Atchison, Topeka & Santa Fe.**—A new city ticket office to be located in the Kansas City Southern building, Kansas City, Mo., will be constructed by the Hiram Elliott Construction Company, Kansas City, Kan., under a contract recently awarded. All necessary grading and culvert work in connection with a track to serve the Air Force Training Base at Wichita, Kan., has been covered by a contract awarded to the Peter Kiewit Sons' Company of that city. A new depot at Lamesa, Tex., will be built by Wedding & Cochran of Amarillo. The power plant at 18th street, Chicago, will be converted to burn oil instead of coal under a contract awarded to C. W. Johnson, Inc., of Chicago.

**Norfolk & Western.**—This company has authorized, at the indicated probable costs, a tipple and track layout at Arista, W. Va. (\$40,000), and installation of crossing signals at Portsmouth, Ohio (\$36,000).

**Pennsylvania-Reading Seashore Lines.**—Following approval by the I.C.C. of abandonment of the Pennsylvania's Delaware River ferry service between Philadelphia and Camden, N. J., the P.-R.S.L. and the Delaware River Joint Commission have announced plans to enlarge and modernize the railroad's Broadway station in Camden to accommodate former ferry passengers. The contemplated improvements to the station, about half a mile from the present ferry termi-



SOON TO BE MANUFACTURED IN ENGLAND, the latest model Vapor-Clarkson steam generator is here inspected by J. Neville Gresham (left), director general, and Gala Marsh (center), chief engineer, both of Gresham & Craven, Ltd., Manchester, England, and O. A. Rosboro, vice-president

in charge of foreign sales, Vapor Heating Corporation, Chicago. Gresham & Craven will build the generators at Manchester. Soon after this picture was taken, Mr. Rosboro left Chicago for a five-month tour visiting railroad men in 10 European nations where vapor train heating equipment is used



nal, will facilitate interchange between P.-R.S.L. trains and rapid transit trains operated by the commission between Camden and Philadelphia.

The railroad's portion of the work will cost approximately \$880,000 and will include wider and longer sheltered platforms, to provide for better connection with the commission's transit lines; an enlarged waiting room; improvements to station facilities under platforms, and moving stairways to outbound platforms. The commission's portion of the work is estimated to cost approximately \$260,000. The work will be begun and carried to completion as rapidly as availability of materials permits.

The I.C.C. order authorizing abandonment of the ferry service provided that such abandonment might become effective as of September 24, but the P.R.R. is considering a request by Camden city officials that the ferry service be continued until the Broadway station improvements are completed.

## FINANCIAL

### R.F.C. Gets \$11 Million For Seaboard Holdings

The Reconstruction Finance Corporation has sold all of its holdings of Seaboard Air Line stocks and bonds. The agency received about \$11,388,000 for the securities, which were sold on a bid basis. (*Railway Age*, August 13, page 73.)

A syndicate headed by Bear, Stearns & Co. acquired R.F.C.'s 102,273 shares of Seaboard common. The same group placed the winning bid for the agency's holdings of Seaboard 4½ per cent series A income bonds.

The common stock was bid in at \$55.175 a share, or a total of \$5,642,912.78. For the income bonds the group paid \$86.55 in principal and accrued interest per \$100 par bond. Total payment for the bonds amounted to \$5,007,672.22.

Another syndicate, headed by the First Boston Corporation, placed the winning bid on 9,543 shares of Seaboard 5 per cent preferred stock held by the R.F.C. This bid was for \$77.20 a share, or a total of \$737,387.60.

**Atchison, Topeka & Santa Fe Gulf, Mobile & Ohio.—Trackage Rights.**—A December 1, 1950, agreement between these two roads, covering joint use of certain coal trackage in Grundy, Will, and Kankakee counties, Ill., has been approved by the I.C.C. This approval will enable the roads to rearrange existing methods of serving coal fields of the Northern Illinois Coal Corporation. Under the agreement, the Santa Fe obtains trackage rights over about 8.3 miles of G.M.&O. line, while the latter will

use 2.15 miles of Santa Fe trackage. The roads will also operate the 4-mile Mullins spur, a jointly owned line. The I.C.C. report approving this agreement noted that during the next five years the coal company will produce an estimated 850,000 tons of coal a year, and these two roads will participate in this traffic.

**Canadian National. — Refinancing.**—This company, on September 1, will pay off, in United States funds in New York City, bonded indebtedness amounting to \$48 million. The payment will be accomplished without any subsequent financing or additional borrowing to facilitate this debt retirement.

### New Securities

Division 4 of the I.C.C. has authorized:

**GEORGIA RAILROAD & BANKING CO.**—To issue \$2,240,000 of 3½ per cent debenture bonds which will be sold at par to the Equitable Life Assurance Society. The proceeds will be used to pay \$1,500,000 of 6 per cent debentures and a promissory note of \$740,000, both of which will become due October 1.

Application has been filed with the I.C.C. by:

**SOUTHERN PACIFIC.**—To assume liability for \$10,920,000 of series GG equipment trust certificates to finance in part the acquisition of equipment, listed below, which is expected to cost a total of \$14,570,984.

Description and Builder	Estimated Unit Cost
10 1,500-hp. diesel-electric locomotive lead units (Electro-Motive Division of the General Motors Corporation)	\$174,320
16 1,500-hp. diesel-electric locomotive lead units (Electro-Motive)	174,358
4 1,500-hp. diesel-electric locomotive booster units (Electro-Motive)	158,162
10 1,000-hp. diesel-electric switching locomotives (American Locomotive Company)	103,130
3 660-hp. diesel-electric road switching locomotives (General Electric Company)	79,302
3 1,600-hp. diesel-electric freight locomotives, each consisting of one 800-hp. lead unit and one 800-hp. booster unit (Electro-Motive)	193,994
3 3,200-hp. diesel-electric freight locomotives, each consisting of one 1,600-hp. lead unit and one 1,600-hp. booster unit (Baldwin-Lima-Hamilton Corporation)	386,926
500 50-ton gondola cars (Southern Pacific Equipment Company)	4,806
350 50-ton box cars (S.P.)	5,357
100 70-ton hopper-bottom ballast cars (American Car & Foundry Co.)	6,894
78 70-ton covered hopper cars (A.C.F.)	7,081
50 70-ton, fixed-end gondola cars (A.C.F.)	6,348
50 70-ton, drop-end gondola cars (A.C.F.)	6,004
48 50-ton box cars (Pullman-Standard Car Manufacturing Company)	5,333

The certificates, dated September 1, would be sold on the basis of competitive bids which would fix the interest rate. They would mature in 15 annual installments of \$728,000 each, beginning September 1, 1952.

### Security Price Averages

	Aug. 21	Prev. Week	Last year
Average price of 20 representative railway stocks	53.16	53.16	46.70
Average price of 20 representative railway bonds	92.78	92.15	95.93

### Dividends Declared

**Chesapeake & Ohio.** — common, 50¢, payable September 20 to holders of record September 4; 3½% convertible preferred, 87½¢, payable November 1 to holders of record October 5.

**Chicago, Rock Island & Pacific.** — common, 75¢, quarterly, payable September 29 to holders of record September 13.

**Copper Range.** — 5% preferred, \$1.50, payable August 31 to holders of record August 20.

**Dover & Rockaway.** — \$3, semiannual payable October 1 to holders of record September 29.

**Erie & Pittsburgh.** — guaranteed, 87½¢, quarterly, payable September 10 to holders of record August 31.

**Maine Central.** — 5% preferred, \$1.25, accumulative, payable September 1 to holders of record August 17.

**Philadelphia, Germantown & Norristown.** — \$1.50, quarterly, payable September 5 to holders of record August 20.

**Southern Pacific.** — \$1.25, quarterly, payable September 17 to holders of record August 27.

**Virginian.** — common, 62½¢, quarterly (payable September 25 to holders of record September 11; 6% preferred, 37½¢, quarterly, payable November 1, February 2, 1952, May 1, 1952 and August 1, 1952, to holders of record January 16, 1952, April 17, 1952, and July 17, 1952.

### Investment Publications

[The surveys listed herein are, for the most part, prepared by financial houses for the information of their customers. Knowing that many such surveys contain valuable information, *Railway Age* lists them as a service to its readers, but assumes no responsibility for facts or opinions which they may contain bearing upon the attractiveness of specific securities.]

**The Commercial and Financial Chronicle**, July 19, 1951. William B. Dana Company, 25 Park pl., New York 7. Single copies, 40 cents.

**Inflation and the Railroads**, an address by Walter Hahn, of Smith, Barney & Co., before the Association of Customers' Brokers, New York, July 10.

**Baker, Weeks & Harden**, One Wall st., New York 5.

**Comparison, Several Interesting Railroad Preferred Stocks**. August 6.

**Denver & Rio Grande Western Common and Preferred Stocks**. August 8.

**Railroad Review**. July 30.

**Fahnestock & Co.**, 65 Broadway, New York 6.

**Central of Georgia Railway Co.** Weekly Review, August 13.

**Seaboard Air Line Railroad Co.** Weekly Review, July 30.

**Kerr & Co.**, General Petroleum bldg., Los Angeles, Cal.

**Canadian Pacific Railway Co.** No. 987, August 13.

**Merrill Lynch, Pierce, Fenner & Beane**, 70 Pine st., New York 5.

**Railroads. Stock Comment No. 246**. July 6.

**Railroads**. A 32-page brochure containing information on present railroad conditions, as well as on outline of the position and outlook of 40 major railroads.

**Smith, Barney & Co.**, 14 Wall st., New York 5.

**Northern Pacific Railway Company.** Railroad Bulletin No. 65, July 26.

**Railroad Bond Exchange Suggestions**. Railroad Bulletin No. 64, July 25.

**Texas & Pacific Railway Company.** Railroad Bulletin No. 67, July 31.

**Vilas & Hickey**, 49 Wall st., New York 5.

**Southern Railway**. August 10.

**J. R. Williston & Co.**, 115 Broadway, New York 6.

**Current Position of Railroad Securities**. August 2.



## RAILWAY OFFICERS

### EXECUTIVE



**Ray E. Butler**, vice-president and superintendent of the Newburgh & South Shore, at Cleveland, has been appointed chairman for the ensuing year of the Cleveland Railroad Operating Committee, which is the coordinating body on local problems that affect the railroads generally

**William Lawrence** has been promoted to executive assistant on the SOUTHERN PACIFIC, with headquarters at San Francisco, succeeding **Edward F. Widdas**, who has been appointed manager of the real estate department, as reported elsewhere in this issue.

**J. A. Cooper**, assistant freight traffic manager of the SOUTHERN, has been promoted to executive general agent, with headquarters as before at Louisville, Ky., effective September 1.

**Fred C. Berghaus**, vice-president—operations of the CHICAGO, INDIANAPOLIS & LOUISVILLE, at Lafayette,



**Frank E. Martin**, comptroller of the Illinois Central, at Chicago, who has been elected vice-president and comptroller, effective September 1

Ind., has been granted a four months leave of absence, effective September 1. When he reports back to the Monon on January 1, 1952, he will assume new duties as special representative and consultant.

### FINANCIAL, LEGAL & ACCOUNTING

**Edward F. Widdas**, executive assistant of the SOUTHERN PACIFIC, has been appointed manager of the road's real estate department at San Francisco, succeeding the late **Merritt Johnson**.

**R. L. Gohmert** has been appointed freight claim agent of the WESTERN PACIFIC at San Francisco, succeeding **T. B. Barry**, who will retire on September 1, after 31 years of service.

**Christian J. Mumm**, auditor of station accounts of the GREAT NORTHERN, has retired. His successor is **W. J. Maloney**, of the G. N.'s accounting department.

### OPERATING

**B. F. Wells**, superintendent of the CHICAGO, ROCK ISLAND & PACIFIC at Rock Island, Ill., has been promoted to assistant general manager of the Second district, with headquarters at Kansas City, Mo.

**S. A. Hart** and **L. J. King** have been appointed terminal trainmasters at Springfield, Mo., and Memphis, Tenn., respectively, for the ST. LOUIS-SAN FRANCISCO.

**R. W. Cassidy**, supervisor, bridges and buildings, of the CHESAPEAKE & OHIO, at Peru, Ind., has been appointed to the newly created position of assistant allotment commissioner, reporting to the chief rating commissioner, at Huntington, W. Va.

**Raymond R. Gavin**, superintendent of the CHICAGO, BURLINGTON & QUINCY's Hannibal division, will join the CHICAGO, INDIANAPOLIS & LOUISVILLE on September 1 as general manager, a newly created post. As general manager of the Monon, Mr. Gavin will assume the responsibilities of **Fred C. Berghaus**, vice-president—operations, who, after a four months leave of absence, will become special representative and consultant, as noted elsewhere on this page.

**Charles G. Hamilton**, terminal trainmaster of the SOUTHERN at Cincinnati, has been advanced to assistant superintendent terminals at Chattanooga.

**E. H. Cook**, trainmaster of the ATLANTIC COAST LINE at Dothan, Ala., has been appointed superintendent, Montgomery district, at Montgomery, Ala., succeeding **W. M. Black**, who

will retire on September 1 at his own request, after more than 52 years of service. **M. Thrash** has been appointed to succeed Mr. Cook as trainmaster at Dothan, effective September 1.

### TRAFFIC

**William Stuart Wilson, Jr.**, district freight agent of the PENNSYLVANIA at Richmond, Ind., has been advanced to division freight agent at Columbus, Ohio, to succeed **R. W. Leedy**, who, as reported in last week's *Railway Age*, becomes assistant general freight agent at Philadelphia. **Joe E. Little**, district freight agent at San Francisco, moves to Richmond as Mr. Wilson's successor, while **Wilson E. Pry**, district coal agent at Boston, Mass., replaces Mr. Little.

**J. A. Christiansen**, commerce agent of the CHICAGO, ROCK ISLAND & PACIFIC, has been appointed assistant general freight agent at Chicago, succeeding **E. W. Larsen**, who has been assigned to handle southwestern freight rate adjustments.

**Noland E. Fields**, general agent, freight department, of the NEW YORK CENTRAL at Jacksonville, Fla., has been transferred to Memphis, Tenn., succeeding **J. Grady Willock**, retired. **Carl J. Hucabee** has been appointed to succeed Mr. Fields at Jacksonville.

**Richard Mercer**, formerly district passenger agent of the NEW YORK CENTRAL SYSTEM at St. Louis, has been appointed general agent, passenger traffic department, at Los Angeles, and is succeeded by **F. W. Trinka**, general agent, passenger department, at Oklahoma City.

**Walter G. Kuhlmann**, chief clerk to the passenger traffic manager of the WABASH at St. Louis, has been advanced to assistant general passenger agent there, succeeding the late **Eugene P. Soebbing**, whose death was reported in the August 6 *Railway Age*.

**William Henry Rabe**, general freight agent in charge of freight traffic solicitation for the MISSOURI PACIFIC LINES, St. Louis territory, is retiring September 1. Mr. Rabe was born at Chester, Ill., August 17, 1886, started with the M.P. at East St. Louis in September 1902 as a clerk, and, after holding a number of positions, including division freight agent and general agent, became general freight agent.

### MECHANICAL

**Everett H. Weston**, who was recently promoted to assistant chief mechanical engineer of the CHICAGO & (Continued on page 65)







# LITERATURE and PAMPHLETS Offered by Railway Age Advertisers

Following is a compilation of free literature and pamphlets offered by advertisers in the four August issues of RAILWAY AGE (and by recent manu-

facturers' announcements). Circle the number or numbers on the card below to receive the additional literature desired.

**413. Asbestos & Cement Pipe**  
*Johns-Manville.* Brochure TR-11A gives complete information on the J-M Transite Pressure Pipe, made of asbestos and cement.

**414. Locomotive Cranes**  
*American Hoist & Derrick Co.* Literature on American's Diesel and Diesel Electric locomotive cranes.

**415. Tank Car Cartoon Ad.**  
*General American Transportation Corp.* Reprints of the cartoon advertising series available for shop use.

**416. Mechanical-Pneumatic Decelostat**  
*Westinghouse Air Brake Company.* Bulletin DL 2461-1 gives complete information on the Westinghouse AP Mechanical-Pneumatic Decelostat and explains how it stops wheel slides.

**417. Tool Crib Control System**  
*Remington Rand.* Booklet KD 641 "7 Ways to Save With Simplified Tool Crib Control" describes and illustrates various uses of the systems.

**418. Diesel Engines**  
*Cooper-Bessemer Corporation.* Recent news release describes new bulletin on the type FV diesel engines, built in 6, 8, 12 and 16 cylinder types.

**419. Locomotive Brake Feed Valve**  
*Westinghouse Air Brake Co.* Descriptive Catalog No. 2060 gives data on the new Westinghouse D-24-B Feed Valve.

**420. Storage Batteries**  
*Gould-National Batteries, Inc.* Descriptive literature on the Gould Plus-Performance Plan showing how to conserve and extend battery power. Please request this booklet on your letterhead.

**421. Diesel Lubricants**  
*Ashland Oil & Refining Company.* Complete information available on the Ashland line of special diesel lubricants.

**422. Steel Buildings**  
*Armco Drainage & Metal Products, Inc.* Complete information on Armco Steelox buildings and panels.

**423. Freight Car Bulkheads**  
*Pittsburgh Steel Products Co.* Information

on Pittsburgh permanent returnable steel bulkheads.

**424. Ballast Cleaner**  
*Matisa Equipment Corp.* Details on Matisa Ballast Cleaner rentals and availability, the cleaner that reaches under the ties.

**425. Freight Car Truck**  
*National Malleable and Steel Castings Company.* National C-1 Truck Circular 5150 describes the "lading-conscious" truck.

**426. Non-Spin Wheel Hand Brake**  
*Union Asbestos & Rubber Company.* Literature available on the Equipco Non-Spin Wheel Hand Brake with the friction clutch.

**427. Trucks**  
*Standard Car Truck Co.* Booklet available illustrating the low installation cost of replacement parts — especially shoes.

**428. Asbestos Roofing**  
*Johns-Manville.* Details available on the Johns-Manville Asbestos Shingle and Asbestos Built-Up roofs.

**429. Fork Lift Gas Trucks**  
*Yale & Towne Mfg. Co.* Detailed information available on the new Yale fluid drive fork lift gas trucks.

**430. Materials Handling Accessories**  
*Towmotor Corporation.* Folders available describing the 14 standard Towmotor accessories and special engineering devices.

**431. Rolling Doors**  
*Kinnear Manufacturing Company.* Complete data on rolling doors now available in the new free Kinnear Rolling Door Catalog.

**432. Water Heaters**  
*Vapor Heating Corporation.* Bulletin "Standby Protection for Diesels" gives information on the Vapor Standby Water Heater for diesel engines.

**433. Car Cork-Type Insulation**  
*Dednox Incorporated.* Detailed information on Dednox 60% cork insulation as used in freight car insulation.

**434. Rust Preventative**  
*Rust-Oleum Corporation.* New catalog describes rust preventative for rolling stock, metal buildings, bridges, signal equipment.

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## Additional Product Information

This is a complete list of products mentioned in the advertisements in this issue. For more data on any product shown, circle the page number on the reply cards below, fill in and mail. Note: If the advertiser mentions more than one product, or if more than one ad appears on the page, write in the name of the product you are interested in.

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## BUSINESS REPLY CARD

First Class Permit No. 153 (Sec. 349, P.L.&E.), New York, N.Y.

POSTAGE WILL BE PAID BY—

RAILWAY AGE

30 Church Street

Reader

Service Dept.

New York 7. New York

RAILWAY AGE

August 27, 1951

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Company .....

Address .....

LITERATURE & PAMPHLETS

435. Rubber-Tired Off-Track Switcher  
Frank G. Hough Company. Job Study #18 is a complete picture-and-word report on the uses of Payloader Switchers by a large brewery.
436. Coin Changer  
Metal Products Engineering Inc. Literature on MP Jr. the modern streamlined coin changer and nearest dealer's name.
437. Radiography  
Eastman Kodak Company. Booklet available on this important function of photography — "Radiography as a Foundry Tool".
438. Industrial Truck Maintenance  
Baker Industrial Truck Div. The Baker-Raulang Company. New 16-page picture-story manual "Care and Maintenance of Industrial Trucks".
439. Story of National Bearing Div.  
National Bearing Div. American Brake Shoe Company. Catalog gives a complete and pictorial story of National Bearing Division facilities, from research through final precision machining.
440. Traffic & Transportation Conference  
American Society of Traffic and Transportation, Inc. Information and complete details of this first annual conference and seminar to be held in Chicago, September 13 & 14.
441. Vibrator-Converter  
Cornell-Dubilier Electric Corp. Complete technical data on the Cornell-Dubilier vibrator converter as used on radio equipped diesel locomotives with 75 volt control.
442. Double Glazed Sash  
O. M. Edwards Co., Inc. Detailed information on the different types of doubled glazed units and various designs of sash frames.
443. Twin Hook Frog Plates  
Bethlehem Steel Company. Folder 390 gives full information on the various types and sizes of Bethlehem Twin Hook Frog Plates.
444. Hungerford Cartoons  
Edgewater Steel Company. Enlarged copies of Hungerford cartoon without advertising copy, used in August 13 R A ad, available.
445. Roofing Materials  
Philip Carey Mfg. Co. Details available on Carey's free roof check inspection service.
446. Solid Journal Bearings  
Magnus Metal Corp. subs of National Lead Co. Booklet "Facts" gives information regarding the A.A.R. solid journal bearings.
447. Vanadium Steels  
Vanadium Corporation of America. Data sheet gives complete details of composition, etc., of Vanadium Steels and Irons for diesel application.
448. Bolts  
Russell, Burdall & Ward Bolt and Nut

- Company. Specially prepared report "The Effect of Various Fasteners on the Fatigue Strength of a Structural Joint."
449. Gas Cutting Machine  
Air Reduction Sales Company. Complete information on the all new Airco No. 50 Travograph gas cutting machine.
450. Locomotive Crane  
Orton Crane and Shovel Co. Catalog #83 describes the Orton Torque-Control crane with GM Allison Torque Converter.
451. Pins and Bushings  
Ex-Cell-O Corporation. Bulletin 32381 describes standard styles and sizes of pins and bushings.
452. Proportioning Tanks  
Pyrene Manufacturing Company. Complete information available on the Pyrene Proportioning Tanks and their use in fire-fighting.
453. Fork Trucks  
Clark Equipment Company. Information on Clark attachments and fork-lift trucks in (1) condensed catalog, (2) movie digest, (3) "Safety Saves", and (4) "Basic Facts" as mentioned in ad in August 13 RA.
454. Freight Car Coating  
J. W. Mortell Co. Circular on Railway Insulmat, the 3-purpose coating used for interior walls of all types cars.
455. Resilient Side Bearings  
The Symington-Gould Corp. Bulletin S-415 gives a complete description of the Symington Resilient Side Bearings.
456. Retarder System & Automatic Switching  
General Railway Signal Co. Pamphlet #695 describes the one-man complete-control G-R-S Retarder System and Automatic Switching.
457. Unicel Freight Car  
Pressed Steel Car Co., Inc. Complete information available on the Unicel combination refrigerator-box car.
458. Cleaner & Excavator  
Railway Maintenance Corporation. Information available on the use of the Super Mole for road bed maintenance — cleaning and excavating.
459. Diesel Electric Locomotive-Cranes  
Industrial Brownhoist Corporation. Descriptive information regarding Brownhoist diesel electric locomotive cranes.
460. Paper Cups  
United States Envelope Co. Full particulars on economical way of putting water cup services in passenger cars.
461. Safety Equipment  
Willson Products Inc. The new Willson catalog gives complete data on the Willson line of plastic eye protection and respiratory safety equipment.

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BUSINESS REPLY CARD  
First Class Permit No. 153 (Sec. 34.9, P.L.&R.), New York, N.Y.

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RAILWAY AGE  
30 Church Street  
New York 7, New York

Reader  
Service Dept

RAILWAY AGE August 27, 1951

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On pages....., I want data on .....only!  
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Name & Title .....

Company .....

Address .....







(Continued from page 62)

**NORTH WESTERN** at Chicago, was born in that city July 17, 1916, and received a mechanical engineering degree from Northwestern University in 1938. Starting his career in 1939 as



Everett H. Weston

tracer on the North Western, Mr. Weston served successfully as draftsman, design engineer and lead draftsman, car and locomotive, until his promotion to mechanical engineer in 1947. It was from that post that he was recently promoted.

#### PURCHASES & STORES

**H. W. Berg**, formerly chief clerk in the CHICAGO, ROCK ISLAND & PACIFIC's purchasing department, has been promoted to fuel agent at Chicago. He succeeds the late **M. H. McGlynn**.

**T. J. Clancy**, district storekeeper on the GREAT NORTHERN at Great Falls, Mont., has been transferred in that position to St. Cloud, Minn., to succeed **G. R. Watland**, who has retired after 48 years' service. Succeeding Mr. Clancy is **E. C. Carlson**, district storekeeper at Havre, Mont., who is in turn replaced by **W. A. Thunstedt**, division storekeeper at Grand Forks, N. D. **C. W. Driver** succeeds Mr. Thunstedt.

**H. A. Paar**, assistant general storekeeper of the CLEVELAND, CINCINNATI, CHICAGO & ST. LOUIS, at Beech Grove, Ind., has been appointed general storekeeper there, succeeding **E. H. Landers**, who will retire on September 1. **J. W. Patterson**, district storekeeper at Beech Grove, has been appointed assistant general storekeeper to succeed Mr. Paar, and is in turn succeeded by **C. L. Clapp**.

Mr. Landers was born at East Syracuse, N. Y., February 23, 1884. He entered railway service in 1900 as a yard clerk on the New York Central & Hudson River (now New York Central) at East Buffalo, N. Y. He subsequently held various clerical positions in the stores department of the Lake Shore & Michigan Southern (now also N.Y.C.) until 1907, when

## WOOD grain doors SIMPLE • INEXPENSIVE • EFFICIENT!

*Simple*—Easiest to apply—complete cooperation within 10 minutes! Only 4 12d nails per door—less labor, less doorpost damage!  
*Inexpensive*—A minimum of 3 trips per door, and ONLY 8 GOOD GRAIN DOORS PER CAR ARE NEEDED! Don't waste grain doors.

*Efficient*—No bulge problem—no yard debris or employee hazard—no skilled labor, special nails or instructions needed!

\*This fact has been proven in a test conducted under the supervision of the Western Weighing and Inspection Bureau of a grain movement out of Kansas City June 7, 1951 to Galveston, Texas; also in a test conducted under the supervision of the Eastern Weighing and Inspection Bureau on a grain movement out of Buffalo June 13, 1951 to Weehawken, N. J.

"Mummert Makes Good Grain Doors"

THE MUMMERT CO.  
PROGRESO, TEXAS



he was appointed storekeeper at Englewood, Ill., later becoming traveling storekeeper at Collinwood, Ohio, storekeeper at Elkhart, Ind., and assistant general storekeeper at Collinwood. From 1914 to 1919 he was storekeeper on the Mobile & Ohio (now Gulf, Mobile & Ohio) at Murphysboro, Ill. In 1919 Mr. Landers became supervisor of stores for the C.C.C. & St. L. at Beech Grove, and since 1920 has been general storekeeper there.

## ENGINEERING AND SIGNALING

**K. Huffman**, engineer of construction and fire prevention of the Central region of the CANADIAN NATIONAL, at Toronto, has been appointed chief engineer of that region, succeeding **E. R. Logie**, retired. **G. H. Workman**, acting assistant engineer of construction, Central region, has been appointed to succeed Mr. Huffman.

Mr. Logie was born at Chatham, N. B., August 18, 1886, and attended the University of New Brunswick. He began railroading in 1907 with the Grand Trunk Pacific (now C.N.) as



**E. R. Logie**

a rodman and draftsman. Subsequently he was a draftsman and leveller with the Bangor & Aroostook; topographer for the Algoma Central & Hudson Bay; resident engineer of the Canadian Northern (also now Canadian National), and resident engineer of the Toronto, Hamilton & Buffalo. In 1919 he became associated with the Canadian National as assistant engineer, maintenance; in 1928 was appointed division engineer, and in 1940 district engineer of the Southern Ontario district, at Toronto. In 1943 he was appointed engineer maintenance of way of the Central region, and in 1945 chief engineer of that region.

**John W. Kidd**, assistant division engineer of the SOUTHERN at Knoxville, Tenn., has been promoted to division engineer at Louisville, Ky.

**W. F. Auch**, assistant signal engineer on the CHICAGO SOUTH SHORE & SOUTH BEND, at Michigan City, Ind.,

has been promoted to signal engineer. In his new post Mr. Auch will have charge of field execution of signal, communication and propulsion power distribution department assignments. He is succeeded as assistant signal engineer by **R. B. Hendrickson**.

**B. V. Bodie**, superintendent of the GULF, MOBILE & OHIO at Bloomington, Ill., has been promoted to chief engineer, with headquarters at Mobile, Ala.

## OBITUARY

**William R. Benjamin**, 69, who retired from the position of treasurer of the NEW YORK, NEW HAVEN & HARTFORD on November 1, 1949, died in New Haven Hospital, New Haven, Conn., on August 19.

**Harold H. Zeller**, 54, superintendent of dining cars of the CHICAGO & EASTERN ILLINOIS, with headquarters at Chicago, died on August 15 in that city of a heart attack. Mr. Zeller first joined the C.&E.I. as a traveling passenger agent in September 1927. He had been in charge of dining car service for the past six years.

**Emil L. Larson**, former engineer of car design and maintenance of the CHICAGO, BURLINGTON & QUINCY at Chicago, died at Downey, Cal., on July 30. At the time of his death he was at work at North American Aviation, Inc., with which firm he had become associated since leaving the Burlington in 1949. While with the Burlington Mr. Larson had actively participated in design of early "Zephyr" cars and also of Vista Dome cars.

**T. M. Flynn**, retired superintendent of the NORTHERN PACIFIC, died on August 14.

**Clark M. Groninger**, 56, coal traffic manager of the BALTIMORE & OHIO at Baltimore, died at Norfolk, Va., on August 20.

**L. E. McKeand**, who relinquished his post as comptroller of the NASHVILLE, CHATTANOOGA & ST. LOUIS last May and subsequently continued with the road in an advisory capacity, died on August 9 at his home in Nashville. A sketch of Mr. McKeand's career appeared in the May 7 *Railway Age*.

**Walter L. Oswalt**, stores manager of the PENNSYLVANIA at Philadelphia, died on August 20, during a staff meeting at the Broad Street Station building there. Mr. Oswalt was born at Topeka, Kan., on November 22, 1884. He entered the service of the Pennsylvania in March 1903, as a machinist apprentice at Altoona shops, and after serving as machinist and stockman, was appointed assistant storekeeper in 1910.

In May 1916 he was named assis-

tant material agent of the Eastern Pennsylvania division, and on May 1 of the next year became assistant general foreman on the staff of the general superintendent of motive power. In May 1919 Mr. Oswalt was transferred to the general stores department, and on March 1, 1920, was named works storekeeper. He then served successively as assistant general storekeeper and assistant works storekeeper at Altoona, and was again appointed works storekeeper in 1937. In 1943 he was advanced to assistant stores manager at Philadelphia, in 1944, to general storekeeper, and in 1945 to stores manager.

**James W. Hill**, vice-president, freight traffic, of the CHICAGO, ROCK ISLAND & PACIFIC, died in Chicago, August 12, as reported in (*Railway Age* August 20). Born at Orient, Iowa, January 22, 1895, Mr. Hill started with the Rock Island as station helper at Sparland, Ill., in 1910. After 14 months of Army duty in France during World War I, he moved up through traffic department ranks. Following a short term



**James W. Hill**

(1939-1940) as general traffic manager on the Denver & Rio Grande Western, Mr. Hill was appointed general traffic manager for the Rock Island, with full supervision of sales, service and rate departments. In 1944 he was promoted to freight traffic officer, and on the road's emergence from federal trusteeship in January 1948 was elected vice-president in charge 1945 chief engineer of that region.

**Howard R. Hughes**, 59, assistant general manager of the SOUTHERN PACIFIC's Pacific Lines, at San Francisco, died of a heart attack on August 18 at his home at Orinda, Cal. Born at Montgomery, Pa., Mr. Hughes joined the S.P. as a stenographer-clerk at Sacramento, Cal., in 1912, rose through various clerical and operating positions on several divisions, and in 1940 became superintendent of the Tucson division. Transferred to the Western division in 1944, he was promoted to assistant general manager in January 1945.



## Current Publications

### FILM

*A Professional Portrait.* Distributed by National Highway Users Conference, 952 National Press bldg., Washington 4, D. C., and American Trucking Associations, 1424 Sixteenth st., N. W., Washington 6, D. C.

"Designed to increase America's transportation efficiency through better, safer use of streets and highways by commercial motor vehicle drivers," this film has just been released by the Automobile Manufacturers Association. Endorsed by leading national highway transportation organizations, it is a 22-minute film aimed to promote greater awareness of the responsibilities that go with operating a motor vehicle. The picture illustrates the practices of various segments of the trucking industry in selecting and training men who drive commercial vehicles, and describes programs currently underway that are resulting in better safety records for large and small fleet operators.

### PAMPHLETS

*Aren't People Funny?*, *K. O. Dirt and Disorder*, *Cry Whoa!*, and *Safety 'Round the Clock*. Four pamphlets prepared by the National Safety Council, 425 N. Michigan ave., Chicago 11. First three, from 12 cents to 4½ cents a copy, depending on quantity purchased; fourth from 10 cents to 3½ cents a copy, according to quantity.

Designed for distribution by plant foremen or as payroll enclosures, these pamphlets treat safety in the plant, at home and on the highway by using humorous cartoons and light text to sugar-coat the "message." Although not intended solely for railroad personnel, these pamphlets should prove useful in helping to reduce loss of man-hours arising from both on- and off-the-job accidents.

*The Railroad Hour.* 33 pages, illustrations. Association of American Railroads, Transportation bldg., Washington 6, D. C. Free.

The Railroad Hour is, as most people knew, the title of the radio program sponsored on Monday nights by most of the railroads of the United States acting through the A. A. R. This souvenir booklet combines interesting information about the production, personalities and broadcasts of the program with facts about the railroad industry.

*An Emergency Tax Program for 1951.* 38 pages. Committee for Economic Development, 444 Madison ave., New York 22. Free.

A statement on national policy by the Research and Policy Committee of the C. E. D. It discusses the tax problem in the emergency and the federal budget for fiscal 1952. This latter discussion covers expenditures, where to raise the money, taxation of corporate profits, taxation of individual incomes, excise taxes and miscellaneous revisions of the tax system. According to the committee, an adequate and balanced financial program would

## Continuity—

## *Sine Qua Non*

The principle of rhythm, or regular repetition, is fundamental in nature. The continuous dropping of water wears away stone; the repeated strokes of an axe fell the giant oak. We learn our childhood lessons through constant repetition.

The reader of *Railway Age* takes cognizance of this principle. There is a continuity about it. The total effect is cumulative. Each issue sustains and adds to the reader's steadily expanding structure of knowledge of railroading. Each issue keeps him up-to-date on late news and developments, not only in his own department, but in all of them.

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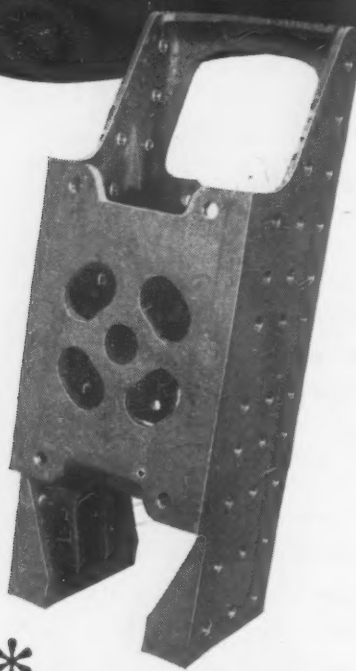
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### **RAILWAY AGE**

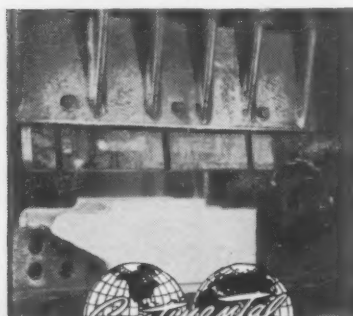
NEW YORK 7, N. Y.  
30 CHURCH STREET,

# Continental BOLSTER CENTER FILLERS



## HOT DIE PRESSED to save you machining

Major railroads save on weight . . . eliminate metal loss and machining costs by specifying Continental Hot Die Pressed Bolster Center Fillers. The Continental method provides perfect accuracy and uniformity. All castings are rigidly inspected before shipment.



**Continental**  
FOUNDRY & MACHINE CO.  
CHICAGO • PITTSBURGH

Plants at:  
East Chicago, Ind.; Wheeling, W. Va.; Pittsburgh, Pa.

consist of (1) maximum possible economy in government expenditure, which would reduce federal cash outlay by some \$6 billion from the \$74 billion proposed for fiscal 1952; (2) prompt enactment of a \$10-billion tax increase; (3) tight restriction on expansion of bank credit; and (4) a national program to encourage private savings.

*The Diesel Locomotive; Revolution on Rails.* 32 pages. Electro-Motive Division, General Motors Corporation, LaGrange, Ill. Free.

A brief history of the Electro-Motive Division, and of development of application of the internal combustion engine to train propulsion in standard railroad operation.

*Erie Railroad; Its Beginnings—and Today.* 28 pages, illustrations. Erie Railroad Company, Midland bldg., Cleveland 15, Ohio. Free.

This handsome little booklet marks the centennial of an important event in the Erie's history—the linking in 1851 of the Great Lakes and the sea by railroad. Part one is a shortened version of an address by Robert E. Woodruff, chairman of the board of the Erie, describing the early history of the road and the progress of the inaugural train on its eventful journey from Piermont, N. Y., on the Hudson river, to Dunkirk, on Lake Erie. The second part brings the reader up to date on the modern Erie. In picture and word, it tells how the Erie has dedicated itself to progressive railroading. The Erie has many "firsts" to its credit and these are listed.

*Chessie's Territory . . . Industry's Center of Opportunity.* 24 pages, illustrations, maps. Chesapeake & Ohio Railway Co., Industrial Development Department, Terminal Tower, Cleveland. Free.

As an aid to manufacturers considering new plant locations, the C. & O. has prepared this interesting and unusual brochure which lists the advantages and resources of each state served by the railroad. Included is such basic information as available natural resources, manufactured products, gas and electric power, water supply, freight service, etc., set up in a form that makes it easy for an industry to determine which area is best suited to its particular needs. The booklet also contains a detailed map of the C. & O. and an overall description of the territory served.

*A Review of Railway Operations in 1950,* by Dr. Julius H. Parmelee. 55 pages. Association of American Railroads, Bureau of Railway Economics, Transportation bldg., Washington 6, D. C. Free.

Reviews traffic-trends, financial operations, employment and wages, prices, purchases, rates and fares, equipment, operating efficiency and economy, and general railroad developments which took place throughout the year. The pamphlet is reprinted from an article appearing in the January 15, 1951, Review and Outlook Number of *Railway Age*, the figures being revised to April 1.

*Railroading in France.* 32 pages, illustrations, map. French National Railroads, 610 Fifth ave., New York 20. Free.

This brochure offers current and timely information on travel in France, and is expressly designed for the traveler using the railroads and related services. It covers various types of trains and cars, day and night accommodations, tickets, seat reservations, baggage formalities, railroad terminals in Paris, motor coach services, railroad station restaurants, and a French-English vocabulary for the traveler.

*Proceedings [of the] Transport Mobilization Roundtable.* 22 pages. Sponsored by the Transportation and Communication department, Chamber of Commerce of the United States, Washington 6, D. C. 50 cents.

At the annual transportation luncheon held at the Hotel Statler, Washington, D. C., on May 1, in connection with the annual meeting of the chamber, a panel discussion entitled "Is Transport Geared to Do the Job?" took place. Addresses of participants and questions from the audience are included in these proceedings. Brief abstracts of the addresses appeared in *Railway Age*, May 7, page 58.

### BOOKS

*Review of Current Research and Directory of Member Institutions.* 244 pages. Engineering College Research Council of the American Society for Engineering Education, Room 7-204, 77 Massachusetts ave., Cambridge 39, Mass. \$2.25.

According to this, the 1951 edition of Review of Current Research, more than 5,200 engineering research projects, representing annual expenditures of over \$50 million, are now active in engineering schools of American colleges and universities. It outlines policies and activities of engineering research in the 91 colleges and universities holding membership in E.C.R.C., and, in addition to complete research project titles, shows for each school the names of responsible research administrative officers, a brief digest of policies which govern research projects and contracts at each institution, number of personnel engaged in research activities, annual expenditures, and special conferences and short courses of interest to research workers. A complete index of research project subjects includes over 4,000 entries. Railroad subjects listed include bearings, bridges, cars, rails, road-bed, signals, structures, tunnels and wheels.

*The Railway Album,* by E. S. Wolff. 156 pages, illustrations. Sampson Low, Marston & Co., 25 Gilbert st., and Oxford st., London, W.1, England. 10s.6d.

All forms of railway operation and practice are covered in this album. There are chapters on evolution of British locomotives, Royal trains, the traveling post office, switching, signaling, track, shops, and a picture survey of locomotives of the world. There are numerous illustrations of railway operations throughout the world and 23 full color plates drawn by railway artists.

# NOW! Get the Book That Protects the Money You Invest in Diesels **DIESEL-ELECTRIC LOCOMOTIVE HANDBOOK**

By GEORGE F MCGOWAN, Technical Consultant

SEND TODAY for this great new book! Packed with photos and diagrams, it brings you up-to-the-minute facts—the latest available on diesel-electric locomotives and equipment. Here is everything you need and want to know—written from the viewpoints of the men in the cab and the shop—by an experienced railroad man—all checked and approved by the leading locomotive builders.

For your convenience this handbook is sold separately in two volumes: *Mechanical Equipment* and *Electrical Equipment*. Read the descriptions that follow and you'll agree: Here is essential information you cannot afford to be without!

## MECHANICAL EQUIPMENT

Everything necessary to complete understanding of diesel-electric locomotives is included—how diesel-electric locomotives are constructed, the reasons behind their design, proper operating methods, things that can go wrong with them, "trouble-shooting," and effective servicing and maintenance.

## GIVES YOU DETAILS OF EACH PART

Among the chapters are: The Development of the Diesel-Electric Locomotive; Fundamentals; Lubricating and Cooling; Fuel Systems—Fuel; Pistons, Piston Rings, Liners; Connecting Rods, Bearings, Crankshafts; Valves, Timing, Heads; Governors; The Steam Generator; The Air Compressor; and The Gas Turbine Locomotive.

## DESCRIBES LOCOMOTIVES BY MAKE

Separate chapters are devoted to accounts of diesel engines made by The American Locomotive Company, Baldwin Locomotive Company, Electro-Motive Diesel, Fairbanks, Morse & Company, and Lima-Hamilton Corporation. Each engine, its parts, and its non-electrical auxiliaries are described and illustrated in full detail.

## SOLVES JOB PROBLEMS FOR YOU

MECHANICAL EQUIPMENT provides you with the most modern information on diesel-electric locomotives and auxiliary equipment in clear, easy-to-understand language. If you have anything at all to do with operating, maintaining or servicing diesel-electric locomotives, you'll use

this book as a handbook to help you solve problems that you meet in your daily work, and as a reference to keep you on top of developments in this expanding field.

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You get full descriptions of all major pieces of electrical equipment and all their parts: how they are constructed, how to operate them, how to take care of them and how to fix them if they go wrong.

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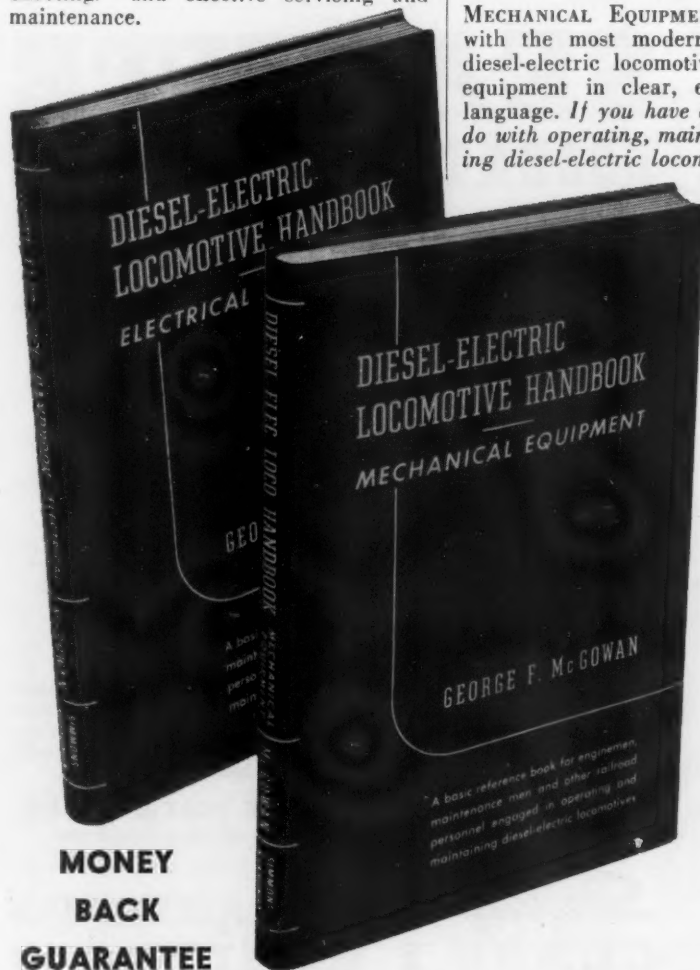
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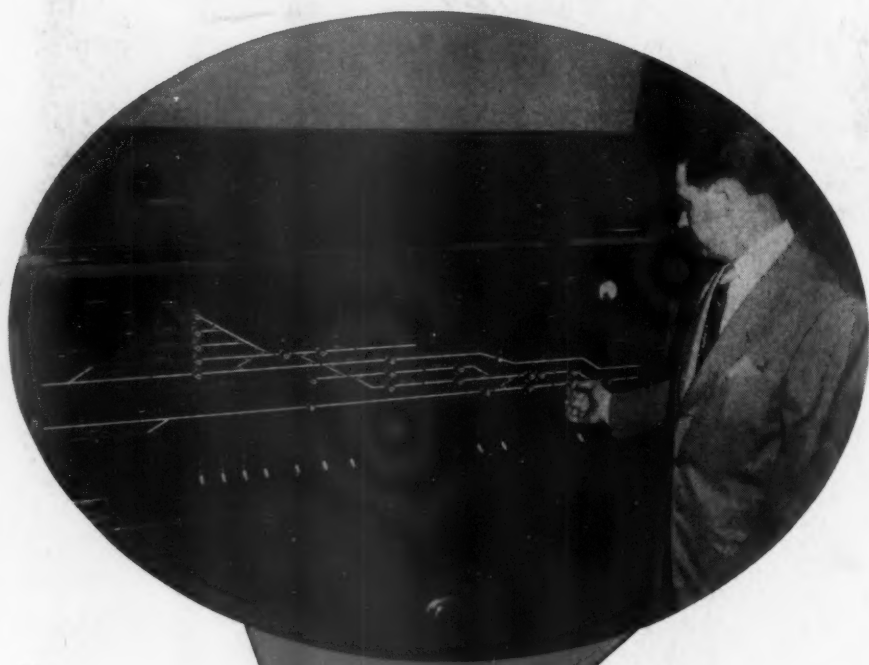
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